EXHIBIT B to the Declaration Of Laura W. Sawyer In Further Support Of Debtors' Motion For An Order Excluding The Testimony Of Daniel Curry And Jeffrey Hasterok

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UNITED STATES BANKRUP' SOUTHERN DISTRICT OF	
In Re: LEHMAN BROTHERS HOLDINGS, INC., et al., Debtors.) Chapter 11 Case) No. 08-13555) (JMP)) (Jointly) Administered)
) Administered)

DEPOSITION OF DAVID F. BABBEL

New York, New York

Friday, March 7, 2014

Reported by: PATRICIA A. BIDONDE, RPR

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	March 7, 2014 10:04 a.m. Deposition of DAVID F. BABBEL, held at the offices of JONES DAY, 222 East 41st Street, New York, New York, before Patricia A. Bidonde, a Registered Professional Reporter and Notary Public of the State of New York.	IT IS HEREBY STIPULATED AND AGREED, by and between the attorneys for the respective parties herein, that filing and sealing be and the same are hereby waived. IT IS FURTHER STIPULATED AND AGREED that all objections, except as to the form of the question, shall be reserved to the time of the trial. IT IS FURTHER STIPULATED AND AGREED that the within deposition may be sworn to and signed before any officer authorized to administer an oath, with the same force and effect as if signed and sworn to before the Court.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	A P P E A R A N C E S: JONES DAY Attorneys for Debtors 222 East 41st Street New York, New York 10017-6702 BY: JAYANT W. TAMBE, ESQ., JENNIFER DEL MEDICO, ESQ., LAURI SAWYER, ESQ. PACIFICA LAW GROUP Attorneys for Washington State Tobacco Settlement Authority 1191 2nd Avenue Suite 2100 Seattle, Washington 98101 BY: PAUL J. LAWRENCE, ESQ. ALSO PRESENT: DEAN MELCHIOR	D. Babbel D. Babbel PROCEEDINGS DAVID F. BABBEL, called as a witness, having been duly sworn by a Notary Public, was examined and testified as follows: EXAMINATION BY MR. LAWRENCE: Q. Please state your full name for the record and spell your last name, please. A. David Frederick Babbel, B-a-b-b-e-l. Q. What is your business address? A. 215 Wakefield Road, Bryn Mawr, Pennsylvania. Q. We were introduced before the deposition. My name is Paul Lawrence, and I represent the Washington State Tobacco Settlement Authority. I appreciate your time today. You understand you've been retained as an expert witness in this case, correct? A. Correct. Q. And it looks, from your

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1	D. Babbel	1	D. Babbel
2	before; is that fair?	2	department. But it was mostly relating to
3	A. Yes.	3	pension and insurance issues.
4	Q. So, I won't go through the basic	4	Q. Is it correct that you've never
5	rules.	5	been a trader for Goldman Sachs or any other
6	I want to understand a little bit	6	entity?
7	about your background and typically how your	7	A. That's correct.
8	background relates to your opinions in this	8	Q. Have any of your non-academic
9	case.	9	experience related to forward purchase
10	A. Yes.	10	agreements?
11	Q. Let's start with your, your	11	A. Have they?
12	non-academic appointments particularly with	12	Q. Yes.
13	Goldman Sachs. Okay?	13	A. Yes. Certainly, at Goldman Sachs
14	A. Sure.	14	we did that. I don't think we did that at
15	Q. What was your role at Goldman	15	Frank Russell.
16	Sachs, and if it's changed over the period of	16	Q. What was your I'm sorry.
17	time that you were there, tell me about those	17	Goldman Sachs
18	changes.	18	A. At the World Bank we didn't do
19	A. Okay. I started off in the fixed	19	that.
20	income division in the financial strategies	20	Q. What was your personal
21	group. And my primary role was to do research		involvement with respect to forward purchase
22	on the valuation and hedging strategies used	22	agreements at Goldman Sachs?
23	in fixed income securities.	23	A. Helping to value transactions
24	I also, while there, did analysis	24	coming up with valuation models that are
25	of the riskiness of fixed income instruments	25	appropriate in particular term structure of
	Page 7		Page 9
1	D. Babbel	1	D. Babbel
2	and their derivatives.	2	interest, forward rates and spot rates of
3	My second year there I was the	3	interest.
4	founding member of the insurance and pension	4	I also helped create valuation
5	department that worked closely with the fixed	5	models for derivatives on fixed income
6	income division, financial strategies.	6	instruments. And I wrote research papers on
7	We were their major clients	7	those.
8	because the insurance and pension department	8	Q. In terms of the work you've
9	represented the buy side for fixed-income	9	described
10	securities. And they were the biggest buyer	10	A. I left off one thing.
11	that Goldman had.	11	Q. Sure.
12	I stayed there for a year and	12	A. With Johnson and Higgins, which
13	then returned to the Wharton School. But I	13	was the second largest insurance brokerage
14	worked part-time there after.	14	firm at the time, later acquired by Marsh
15	Q. What was your part-time	15	Mack, I believe, I worked with the term
16	employment?	16	structure of interest and, in particular,
17	A. I worked part-time at Goldman	17	forward rates and spot rates of interest
18	Sachs thereafter.	18	rates. In constructing for them hedges and
19	Q. I'm sorry. Did you continue in	19	way to price their granted investment
20	the same role in the insurance and pension	20	contracts or GIC's.
21	department or did you take on any additional	21	Q. Can we go back now to what you
22	role or duties in your part-time work?	22	described at Goldman Sachs. It sounded like
23	A. Yes, I took on some additional	23	you did did you do actual programming for
24	duties. I worked with Goldman Sachs asset	24	how to do valuations or I'm just trying to
	management and also the mortgage securities	25	get a little more depth of what your

Page 10 Page 12 1 D. Babbel 1 D. Babbel 2 particular involvement -- obviously, you did 2 CDs, probably more complicated -- but you 3 3 would get this information from a bank, and research? 4 then you'd obviously do some sort of research 4 A. Yes. 5 O. And, in addition to research, it 5 and valuation of the different term options 6 sounded like you had some more specific 6 that were available. Is that fair? 7 involvement in valuation mechanisms; is it 7 I'm just trying to understand a 8 8 programming a model or giving advice on little bit more about what you were doing. 9 particular transactions? Can you explain 9 Obviously you weren't just saving, "Here's the 10 10 rates." that? 11 A. Yes. I worked out the 11 You were trying to do 12 mathematics. And, in some cases, I did 12 something -- not manipulate -- or provide 13 programming for valuation. I also produced 13 information, point a perspective about those term structures of interest for them. I 14 14 rates? 15 analyzed the volatility of the term structure 15 A. Yes. I'll try to explain better. 16 of interest and used those models to assess 16 What you see in the marketplace are prices of 17 the riskiness of fixed income instruments. 17 securities and their cousin yields. And those 18 yields on the securities are particular to the Q. You used the term in your 18 19 testimony, also in your report, "term 19 instrument in question and cannot be used to structure of interest." Can you explain that? 20 20 value instruments that don't have those 21 A. Yes. The term structure of 21 precise characteristics and exact replicas. 22 22 interest is a term we use to describe interest So what economists do and what 23 rates or yields that are available on 23 market participants do is extract financial 24 instruments of similar credit risk but of 24 instruments the underlying forward rates and 25 different maturities or duration. 25 underlying spot rates of interest, which in Page 11 Page 13 1 1 D. Babbel D. Babbel 2 2 Q. Can you give me an example of a, turn, can be used to value anything that has 3 3 of how the term structure of interest would cash flows occurring at different times along 4 the maturity spectrum. And you have to have 4 have applied to a particular instrument? 5 A. Sure. If we go to the bank a 5 those fundamental factors to value other 6 6 block away, you can ask them for quotations on instruments. And I've written a lot about 7 their certificates of deposit. And they will 7 this subject. say, we have one rate for six months, another 8 8 The yields to maturity of one 9 9 rate for one year, another rate for two years. instrument cannot be used to, cannot be used 10 We even have a five-year rate. And those will 10 directly to impute the value of another 11 be different interest rates depending on how 11 instrument unless it's a clone. Instead you 12 long you want to tie up the money. 12 have to extract the underlying forward rates 13 13 Q. So what do you do with that data? and spot rates of interest. And those, in 14 How do you contribute to the understanding of 14 turn, can be used. 15 that data? 15 Q. If I understand you correctly, 16 A. I don't contribute to the 16 and please correct me if I'm oversimplifying 17 understanding of the bank's CDs. But if you 17 or missing the point, you might look at two mean in general how do I contribute to the 18 instruments a CD versus a treasury and look at 18 19 19 the rates that are offered at various periods understanding of ... 20 O. Well, for example, as I 20 of time and determine from the respective 21 understand your testimony, you provided 21 rates what particular interest yields might be 22 research and advice to Goldman Sachs with 22 relevant between the two so you can make an 23 respect to the term structure of interest. 23 investment decision about whether you want, if you wanted to invest in a series of six-month 24 So for example, you would see, I 24 25 don't know that Goldman Sachs dealt with bank transactions or two-year transactions, which

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2	of the two instruments is going to be most	2	securities. It was the one at the time that
3	beneficial or highest yielding over time?	3	seemed to be the most accurate.
4	MR. TAMBE: Objection to form.	4	It ended up not mattering very
5	You can answer.	5	much shortly thereafter because we started
6	A. I would say "no."	6	trading zero-coupon bonds in such volume that
7	Q. Okay. Can you explain why "no"?	7	you could look at the term structure directly.
8	MR. TAMBE: Same objection.	8	Q. Meaning that the market
9	A. That was a long question with a	9	information was sufficient to determine term
10	lot of parts to it. And I was hanging with	10	structure of interest?
11	you for a while, but then you lost me.	11	A. Yes. The market information was
12	Q. Okay. Where did you hang with	12	always sufficient to determine it, but you
13	me?	13	have to do more interpolation sometimes than
14	A. We were talking about the rates	14	others, depending on how dense the market is.
15	of interest and spot rates and forward rates,	15	Zero-coupon bonds gave us a direct measure,
16	and all of a sudden you injected CDs and	16	the term structure of interest.
17	treasuries into the mix and you weren't	17	Q. Your research in this field
18	talking specifically with term rates of	18	depends upon market data. Correct?
19	interest for the, just the yields on those	19	A. Yes.
20	instruments.	20	Q. And it assumes the validity of
21	Q. I'm trying to understand when	21	market data for the purposes of the research
22	Goldman Sachs went to you and asked you for		you're doing. Correct?
23	your research and advice, what were they	23	MR. TAMBE: Objection to form.
24	getting in return?	24	Q. All I'm trying to get at is when
25	A. Yes. So I published a lot of	25	someone does research, you have to use data
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1	D. Babbel	1	D. Babbel
2	that when I was in Goldman Sachs, and it's	2	points. Correct?
3	listed in my vitae.	3	A. That's correct.
4	Q. But it's also fair for me to ask	4	Q. If I'm going to research
5	these questions. I'd prefer for you to answer	5	statistics about baseball, I might use a
6	rather than me read your hundred or so	6	batting average as one data point, or home
7	publications. If that's okay?	7	runs, and come up with different calculations
8	A. That's a smart approach. They	8	of how a player performs by manipulating
9	were getting insight from me into term	9	available data. Correct?
10	structure interest, its calculation, more	10	A. By studying available data, yes.
11	efficient ways to calculate it.	11	Q. I don't mean for "manipulating"
12	There had been a number of	12	to be a bad word. Bill James has come up with
13	approaches to calculate term structure of	13	new statistics based on existing data
14	interest. All of them came up with fairly	14	presented in new ways.
15	similar things. They wanted to understand	15	Do you understand that?
16	which one was the most accurate and also to do	16	A. Yes.
17	research on its volatility over time.	17	Q. And in your world, you're using
18	Q. So did you determine the most	18	market data, correct, to do your analysis?
19	accurate way to calculate the term structure	19	A. I do.
20	of interest?	20	Q. And you're using market data to
21	A. I, I was able to assess which one	21	understand future rates. Is that fair, in
22	was the most usable for them.	22	part?
23	Q. Which was what?	23	A. I I use market data to
24	A. It was, it was called a	24	understand forward rates.
25	Nelson-Siegel method which is for the Treasury	25	Q. And how would you distinguish
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2	forward rates from future rates?	2	commitments either to buy or to sell.
3	A. Forward rates are today's price	3	The value of an instrument can be
4	for locking in a new commitment.	4	determined, and is determined, every day on
5	Q. Because the market you're not	5	Wall Street before the instruments actually
6	using market data to predict future rates.	6	exist. Because they have market data on
7	You're using market data to understand the	7	securities that are traded that gives you an
8	market as of a given day. Correct?	8	understanding of value for some security that
9	A. That's correct.	9	you're about to issue. And that's
10	Q. And the ability to use market	10	Q. Go ahead. I don't want to
11	data to understand forward rates assumes that	11	interrupt your answer.
12	there's an active market that you can trade	12	A. That's sufficient.
13	in. Correct?	13	Q. How does current market data tell
14	MR. TAMBE: Objection to the form	14	you what the yield on a bond issued by the
15	of the question.	15	Confederacy is?
16	Q. In other words, if you're	16	MR. TAMBE: Objection to the form
17	deciding about buying T-Bills and you're	17	of the question.
18	deciding about the different rates that are	18	A. Which confederacy?
19	available and the different terms and you're	19	Q. The South in the civil war.
20	analyzing forward rates, you're using market	20	A. At its current market data?
21	data on the assumption that you can then go	21	Q. Yeah.
22	out and transact in T-Bills in the market.	22	A. Tell you what it's worth?
23	Correct?	23	Q. Yeah.
24	MR. TAMBE: Same objection.	24	A. You have to go to the market for
25	A. In both versions of your	25	that. There is a market for those bonds. I
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2	question, you used the word "you."	2	even have one. And you can trade them. But
3	Q. I'm not talking about you,	3	they're collector's items, so that's the
4	personally.	4	market for them.
5	A. Somebody in the marketplace needs	5	Q. So in order to understand the
6	to be able to transact.	6	value of that asset, you would want actual
7	Q. So if there was an instrument	7	market data to inform your value. Correct?
8	that was no longer available in the market	8	A. If it's a collector's item, you
9	upon which to transact and you had data, say,	9	need that. Because there are no cash flows
10	from 40 years ago when there was a market for	10	associated with the particular bond, since the
11	an instrument, you wouldn't have any ability	11	Confederacy is out of operation.
12	to understand the current rate structure or	12	Q. And what if you don't have market
13	current value of that asset. Is that fair?	13	data? Let's say people lost interest in
14	A. I wouldn't say that.	14	Confederate bonds, so there hasn't been a
15	Q. Would you explain how you would	15	trade in five years.
16	look at the value of that asset where there's	16	A. Yes.
17	no market transactions available and no market	17	Q. How do you bring that into your
18	in which to transact on that asset?	18	valuation?
19	MR. TAMBE: Objection to form.	19	A. For Confederate bonds?
20	You can answer.	20	Q. It could be any. I'm just using
21	A. The term structure of interest	21	that as a hypothetical.
22	tells us the price or the value of cash flows	22	A. Because they offer no payments,
23	received at various points in time. And the	23	and they're bought strictly through
24	forward rates and the term structure of	24	collectors.
25	interest tell us the price of making future	25	Q. Right.

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2	A. You have to look at the	2	You can answer.
3	fundamental elements of the security in	3	A. You switch from a the TSA RFA
4	question. And the fundamental elements	4	which was rejected to a confederacy bond.
5	involve cash flows back and forth. Those can	5	It's my understanding that the TSA retained
6	be valued with term structures of interest	6	their full \$45 million, and they can invest
7	rates.	7	that and earn money on that.
8	Q. Well, as you said, there's no	8	Whereas, in the confederacy bond
9	cash flows associated with Confederate bonds	9	
_	at this time?	10	they didn't get their I guess the
10 11	A. Not that I know of.	11	confederacy retained their money, but they had
		12	it absconded by the federal government.
12	Q. The South will rise again?		Q. Right. So going back to the TSA
13	A. Unless South Carolina is doing	13	situation. What I understand you said was
14	something I don't know about.	14	that the TSA got back its \$45 million. Right?
15	Q. You understand that the RFA	15	A. They have it.
16	question in this case is a contract with	16	Q. So what you would look at is the
17	Lehman who went into bankruptcy and rejected	17	opportunities the TSA has to invest that \$45
18	the contract. Correct?	18	million to understand what the value is that
19	A. I understand.	19	they retained. Correct?
20	Q. And so you understand that that	20	A. I would say the value they
21	particular contract is not going to generate	21	retained is \$45 million. That's what they
22	any cash flows to the rejection date to TSA.	22	have.
23	Right?	23	Q. That's what they have now?
24	A. That's my understanding.	24	A. Yes, what they do with it.
25	Q. And is there some market out	25	That's their business, but they have the
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1	D. Babbel	1	D. Babbel
2	there for Lehman rejected Reserve Fund	2	money.
3	Agreements that you're aware of?	3	Q. Right. But if you're trying to
4	A. I'm not a market participant.	4	compare what they might have earned under the
5	You would need to ask Mr. Gruer about that.	5	contract with Lehman with guaranteed rate of
6	Q. But, in order to analyze the	6	return over a period of time, to what the
7	value of that contract, you would want market	7	value of that \$45 million is now, you would
8	information relevant to that contract.	8	look to the investment opportunities on those
9	Correct?	9	\$45 million TSA holds and see what they can
10	MR. TAMBE: Objection to the form	10	generate from that, consistent with whatever
11	of the question.	11	restrictions there are on that \$45 million and
12	A. I wouldn't need necessarily	12	compare it to the guaranteed rate that Lehman
13	market information on that particular kind of	13	was to provide.
14	security. What you're looking for is the cash	14	Is that fair?
15	flows that would go back and forth and you can	15	MR. TAMBE: Object to the form.
16	value those. There are thousands of	16	You can answer.
17		17	
	instruments that will provide that. Q. But if an instrument is not	18	A. You're focusing on the value of
18	*	19	something, of a contract that no longer
19	generating a cash flow, it's value is zero		exists. To a financial person, the value of
20	unless, as you say in the Confederate, there's	20	\$45 million is \$45 million.
21	somebody that wants to put one on the wall for	21	You can put it in pork belly
22	collector's purposes.	22	futures. You can put it in treasury bonds.
23	Is that fair?	23 24	You can put it in stock. You can put it in
O 4			Ligarination system I It's stall N'/lb seed livers
24 25	MR. TAMBE: Objection to the form of the question.	25	Egyptian junk. It's still \$45 million. That's what the value is. That's the end of

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1	D. Babbel	1	D. Babbel
2	that story.	2	value calculation, what would you use to
3	Now, in terms of so that's the	3	discount the total payments over time to the
4	present value, \$45 million. What TSA happens	4	present value?
5	to do with that money is TSA's business.	5	•
6	Q. Fair enough. So as I understand	6	MR. TAMBE: Which payments?
7	it in pretty straightforward terms: The value	7	Q. The interest payments that Lehman was supposed to make over the every-six-months
	of the \$45 million of the TSA Reserve Fund		in the remaining twenty years of the RFA?
8 9	Agreement to date was the \$45 million that the	8 9	
10		10	A. It would depend on the security
11	TSA had in hand to do with what it thought best?	11	of those payments.
12		12	Q. What do you mean by "the security
	MR. TAMBE: Objection to the form		of those payments"?
13	of the question.	13	A. Well, if the Treasury, or
14	You can answer.	14	something better than the Treasury, were
15	A. That's the value of the amount of	15	offering me 4.484 percent on \$45 million, that
16	the money they have now. If the contract was	16	would have a value higher than if someone that
17	so-called in the money or out of the money	17	couldn't print money were offering it to me.
18	if the contract was in the money, in favor of	18	Q. Well, Lehman was the one who was
19	TSA, they would have lost some portion because		obligated to make the payment. Obviously,
20	they entered into the agreement back in	20	they're not going to make the payment. So is
21	2002.	21	there a way so maybe I'm missing your
22	By 2009, things had changed. And	22	point.
23	so they may have had they may have been in	23	But there is a way we can
24	the money or maybe Lehman was in the money,	24	calculate the number of dollars that Lehman
25	and that would be the only piece. In addition	25	was supposed to pay over the remaining term of
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1	-	1	Page 29 D. Babbel
1 2	D. Babbel	1 2	D. Babbel
	D. Babbel to the \$45 million, that would either be added		_
2	D. Babbel	2	D. Babbel the agreements. Correct?
2 3	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value.	2 3	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that
2 3 4	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the	2 3 4	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that?
2 3 4 5	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was	2 3 4 5	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on
2 3 4 5 6	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to	2 3 4 5 6	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make
2 3 4 5 6 7	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct?	2 3 4 5 6 7	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments.
2 3 4 5 6 7 8	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to	2 3 4 5 6 7 8	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no
2 3 4 5 6 7 8 9	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest.	2 3 4 5 6 7 8 9	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments.
2 3 4 5 6 7 8 9 10	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest. Q. Of the interest payments that	2 3 4 5 6 7 8 9	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no counterparty who is going to make those payments?
2 3 4 5 6 7 8 9	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest. Q. Of the interest payments that were guaranteed under the contract?	2 3 4 5 6 7 8 9 10	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no counterparty who is going to make those payments? A. That's right.
2 3 4 5 6 7 8 9 10 11	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest. Q. Of the interest payments that were guaranteed under the contract? A. You could calculate a present	2 3 4 5 6 7 8 9 10 11	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no counterparty who is going to make those payments? A. That's right. Q. So what assumption would you make
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest. Q. Of the interest payments that were guaranteed under the contract? A. You could calculate a present value of the interest. But a net present value, you have to pay for that. It's 45 million. Q. Forget the word "net." A. Okay. Q. So you could add up the interest payments that were supposed to be paid every six months on that contract over the rejection	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no counterparty who is going to make those payments? A. That's right. Q. So what assumption would you make in order to do present value calculation in the sum of those payments? A. Well, I wouldn't assume the federal government is going to pay it. So you're going to have some other party you would look at the nonfederal government analog to that to be the fixed leg of a swap. Q. So what would your best opinion
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel to the \$45 million, that would either be added or subtracted to it, to come up with the value. Q. Now, you could do a net present value calculation of the interest that TSA was supposed to earn from the date of rejection to the end date of the contract. Correct? A. In that present value of the interest. Q. Of the interest payments that were guaranteed under the contract? A. You could calculate a present value of the interest. But a net present value, you have to pay for that. It's 45 million. Q. Forget the word "net." A. Okay. Q. So you could add up the interest payments that were supposed to be paid every six months on that contract over the rejection date and reduce that to a present value. Is that more accurate?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel the agreements. Correct? A. That's correct. Q. And if I wanted to discount that to present value, how would you do that? A. It would depend, as I said, on who the counterparty is, who is going to make those payments. Q. Right now, there's no counterparty who is going to make those payments? A. That's right. Q. So what assumption would you make in order to do present value calculation in the sum of those payments? A. Well, I wouldn't assume the federal government is going to pay it. So you're going to have some other party you would look at the nonfederal government analog to that to be the fixed leg of a swap. Q. So what would your best opinion be about what you would look to? Are you

	Page 30		Page 32
1	D. Babbel	1	D. Babbel
2	for a period of time? How would you figure	2	Q. Because you're saying you can't
3	that out?	3	find the counterparty?
4	MR. TAMBE: Object to the form.	4	A. Right. So that's not Lehman's
5	You can answer.	5	fault. Now, were you in the money or out of
6	A. It really depends upon the damage	6	the money when Lehman that contract, that's
7	theory, I suppose. I wasn't retained as an	7	your focus. Right?
8	expert on damages, and I haven't thought about		Q. Well, that's not my question.
9		9	But obviously that's a focus of this
10	damages.	10	litigation.
11	The focus of my testimony is whether forward rates of interest are used in	11	•
12		12	My question for you is: We know
	valuing swaps. So I don't have an opinion.	13	what the fixed leg payments from Lehman were
13	It depends on the damage theory that the	14	supposed to be over those 23 years. Correct?
14	courts decide is appropriate in this case.		A. We do. We don't know that it was
15	Q. Explain that to me. What about	15	over 23 years, but
16	the damage theory would inform your decision		Q. Yes
17	on how to discount a current value?	17	MR. TAMBE: Let him ask his
18	MR. TAMBE: Objection to the form	18	question. You're talking over each
19	of the question.	19	other.
20	A. Your hypothetical your	20	Q. You do understand that it's
21	question is looking at a series of future	21	appropriate, when looking at that number, to
22	payments according to reports, the next 23	22	do a present value discount to understand what
23	years or so, whatever remains of that. And	23	that payment stream is worth today as part of
24	you want me to come up with you're asking	24	a damage calculation. Correct?
25	how would I come up with a present value.	25	A. To the extent that damage
	Page 31		Page 33
1	D. Babbel	1	D. Babbel
2	Q. Exactly.	2	calculation involves values, yes.
3	A. It's inextricably linked to the	3	Q. So I'm now looking to you,
4	damage theory. You want to you talk about	4	Professor Babbel, to help me figure out what
5	one leg of a transaction and if it were	5	the appropriate mechanism to discount the
6	replaced. But if it were replaced, it would	6	present value is.
7	involve a counterparty.	7	MR. TAMBE: Objection to form.
8	There are no counterparties out	8	Asked and answered.
9	there for it, apparently, at least in your	9	You can answer.
10	hypothetical. And if there are no	10	A. I'm trying to see what I can say,
11	counterparties out there available to make	11	what I haven't already. Because you're
12	those payments, why aren't there?	12	talking about a series of cash flows over 23
13	Because there are counterparties	13	years, and the value of it obviously depends
14	out there. There are hundreds of	14	upon the counterparty. And you're saying
15	counterparties out there for streams of	15	there isn't a counterparty, and it has no
16	payments.	16	value.
17	Is it because Washington Tobacco	17	So, putting that aside, what's
18	is not a good counterparty? Did they	18	the best you can do the second best you can
19	deteriorate? Did that entire industry	19	do since you have no counterparty? That is to
20	deteriorate?	20	use the market for similar sorts of cash
	It had nothing to do with Lehman	21	flows, and I would use the LIBOR curve to
2.1		22	value that.
21 22	Brothers There's some reason that these		
22	Brothers. There's some reason that these		
22 23	hundred or thousand potential counterparties	23	Q. Now, in this situation, because
22			

	Page 34		Page 36
1	D. Babbel	1	D. Babbel
2	complicate the valuation exercise?	2	Q. That's the present value of what
3	MR. TAMBE: Objection to the form	3	TSA has?
4	of the question.	4	A. Yes. They're giving that to
5	A. You're stipulating that there are	5	somebody else. And if you're looking at what
6	none because that was an assumption earlier.	6	they could earn from it, presumably they could
7	Now, you're stipulating?	7	earn market rates. And if you discount by
8	Q. Well, Lehman's expert has	8	market rates, you got \$45 million.
9	testified that there was no active market in	9	That's assuming that they get not
10	March of 2009 for these types of agreements.	10	only the interest on it but also the
11	A. Yes.	11	principal. If they don't get the principal,
12	Q. So I don't know that that's in	12	then you just calculate the interest rate you
13	the form of a stipulation. But I will ask you	13	could get on it.
14	to take that as an assumption for my question.		Q. So actually, present value is
15	A. Okay.	15	simply looking at the interest earned over
16	MR. TAMBE: What's the question	16	time and returning now to the present. And as
17	again?	17	you said, IPOs de facto with that \$45 million,
18	Q. What complications does that	18	it goes back to \$45 million as the present
19	create for valuing a contract when there's no	19	value. Correct?
20	counterparty available to step in, no market	20	MR. TAMBE: Objection to the form
21	participant who's willing to enter into this	21	of the question.
22	contract?	22	You can answer.
23	A. Yes.	23	A. If you go to not only the
24	MR. TAMBE: Objection to the form	24	interest stream but also the principal, yes,
25	of that question.	25	then it's worth 45 million.
	Page 35		Page 37
			rage 57
1	D. Babbel	1	D. Babbel
1 2	D. Babbel A. It does not eliminate the ability	1 2	D. Babbel
	A. It does not eliminate the ability		D. Babbel Q. I think we're all assuming that
2		2	D. Babbel
2 3	A. It does not eliminate the ability to calculate a present value using LIBOR	2	D. Babbel Q. I think we're all assuming that the principal would be there at the end.
2 3 4	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used	2 3 4	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh.
2 3 4 5	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and	2 3 4 5	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this,
2 3 4 5 6	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So	2 3 4 5 6	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I
2 3 4 5 6 7	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said.	2 3 4 5 6 7	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area.
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what that floating leg would be worth, you would look at what the investment options are for	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with tobacco settlements. As for whether I ever worked with reserve agreements apart from
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what that floating leg would be worth, you would look at what the investment options are for TSA with that \$45 million.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with tobacco settlements. As for whether I ever worked with reserve agreements apart from tobacco, I don't recall.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what that floating leg would be worth, you would look at what the investment options are for TSA with that \$45 million. Is that fair?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with tobacco settlements. As for whether I ever worked with reserve agreements apart from tobacco, I don't recall. Q. And my next question was going to
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what that floating leg would be worth, you would look at what the investment options are for TSA with that \$45 million. Is that fair? A. To see what that's worth?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with tobacco settlements. As for whether I ever worked with reserve agreements apart from tobacco, I don't recall. Q. And my next question was going to be tobacco related. If I understand your
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	A. It does not eliminate the ability to calculate a present value using LIBOR rates, which I understand would have been used when the contract was initially set up and which continued to exist in rich measure. So you can value it with LIBOR rates, as I said. Q. In terms of the so we're talking about the, sort of, fixed rate of the transaction that has failed. In terms of the floating leg of the transaction, I think you testified earlier that TSA has its \$45 million. Correct? A. Yes. Q. And it has the ability to invest that. Correct? A. It does. Q. And in terms of looking at what that floating leg would be worth, you would look at what the investment options are for TSA with that \$45 million. Is that fair?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel Q. I think we're all assuming that the principal would be there at the end. A. Uh-huh. Q. So we actually got off on this, talking about your nonacademic experience. I just want to finish up on that area. You indicated you were not a trader. Did you ever participate in any way with respect to valuations of the Reserve Fund Agreement? A. No. Q. Did you have any involvement in any way with A. Well, I'm sorry, I shouldn't say that. I should say I didn't. I didn't participate in any way in the values of research fund agreements associated with tobacco settlements. As for whether I ever worked with reserve agreements apart from tobacco, I don't recall. Q. And my next question was going to

	Page 38		Page 40
1	D. Babbel	1	D. Babbel
2	that correct?	2	every asset treated on Wall Street.
3	A. That's correct.	3	So to characterize those as
4	Q. Did you have any involvement at	4	insurance instruments, well, they're financial
5	all in analyzing the tobacco master settlement	5	instruments. Insurance companies happen to
6	and payments to estates in any way?	6	buy them.
7	A. No.	7	Q. And I didn't mean to distinguish
8	Q. And you don't recall one way or	8	that you didn't write more broadly about
9	another whether you had any involvement in	9	insurance.
10	other types of Reserve Fund Agreements. Is	10	A. Okay.
11	that correct?	11	Q. Your the focus of your opinion
12	A. That's correct.	12	here is on the future curve. Correct?
13	Q. In your academic experience, did	13	MR. TAMBE: Objection to the form
14	you do any writing or research with respect to	14	of the question.
15	Tobacco RFAs?	15	Q. Forward curve. Sorry.
16	A. No.	16	A. Yes.
17	Q. Did you do any writing or	17	Q. And your opinion is about the
18	research with respect to the Tobacco Master	18	fact that the forward curve is a valid tool to
19	Settlement Agreements and payments to the	19	use in the market. Correct?
20	estates from that?	20	A. Yes.
21	A. No.	21	Q. Are there and I understand
22	Q. Do you recall doing any research	22	that your research and publications may touch
23	and writing with respect to Reserve Fund	23	on that. But are there any particular
24	Agreements, generally?	24	research publications that you've listed that
25	MR. TAMBE: Object to the form.	25	would talk most directly about the forward
	Page 39		Page 41
1	D. Babbel	1	D. Babbel
2	You can answer.	2	curve and its use in the market?
3	A. To me, from a description of cash	3	MR. TAMBE: Objection to the form
4	flows that respective it's not, Reserve	4	of the question.
5	Fund Agreements are different from,	5	You can answer.
6	fundamentally different from other sorts of	6	A. I'd have to take a look.
7	swap arrangements.	7	MR. LAWRENCE: Let's mark your
8	Q. And that's a fair answer. But,	8	report and do that.
9	for example, you can look at your CV. You've	9	(Babbel Exhibit 1, Report of
10	written a lot about insurance instruments.	10	David F. Babbel, marked for
11	Correct?	11	identification, as of this date.)
12	A. Yes.	12	A. Can I mark on this? Does that
13	Q. And I understand that your	13	make it easier?
14	research and writing may pertain to Reserve	14	Q. If I give you the okay to mark on
15	Fund Agreements. But that's not my question.	15	it, it's okay to mark on it.
16	My question is: Are any of your	16	For now, let me first of all ask:
17	research or articles focused specifically on	17	Is that your expert report in this matter?
18	Reserve Fund Agreements as an instrument?	18	A. It looks like it, yes.
19	A. No. I would add that you said a	19	Q. So starting on page 22. You have
20	lot of my writing refers to insurance	20	many pages of research papers that you've
21	instruments. But insurance instruments	21	conducted. And as much as I would love to
22	insurance companies have assets and	22	read all of them, I'm asking you if you can
23	liabilities. So I have written papers on	23	identify and maybe the answer to that
24	virtually every kind of asset that an	24	there are none that are particularly focused
25	insurance company has, which is virtually	25	on the forward curve. But if you could

			1
	Page 42		Page 44
1	D. Babbel	1	D. Babbel
2	identify a couple that you think are	2	is it a collection?
3	particularly focused on your view of the	3	A. No. We're the sole authors. I
4	forward curve, that would be appreciated.	4	wrote all but two chapters. But he is a
5	MR. TAMBE: Objection to the form	5	president of the Federal Reserve Bank, so he
6	of the question.	6	thought his name would sell more books.
7	You can answer.	7	I don't know about
8	And just so you know, Paul, we	8	"Asset/Liability Management for Insurers in
9	need to take a break at 11:15, about 20	9	the New Era." "Inverse Floaters," that would
10	minutes from now.	10	definitely have something about it.
11	MR. LAWRENCE: That's fine.	11	"Valuation of Interest-Sensitive Financial
12	MR. TAMBE: So you can plan	12	Instruments," that's a book that I wrote
13	accordingly.	13	together with Craig Merrill.
14	A. May I mark on page 22?	14	Q. I don't want to stop you if you
15	Q. Yes, that would be fine.	15	need to you go back before 2000, but I was
16	A. Okay.	16	interested in your more recent writing.
17	Q. Just, you have to tell me what	17	A. Some of the best is yet to come.
18	you're	18	This investment managers for insurers, I can't
19	A. (Document review.) "Evaluating	19	be sure, but that was an he did volume. So, I
20	Pension Insurance Pricing." "In technical	20	wrote three or four papers in that book.
21	review," this is for the government.	21	Q. Why don't we call it a day there.
22	MR. TAMBE: Well, he's going to	22	And if I need to go back
23	tell you enough so you know what he's	23	A. I know there are a bunch back in
24	marking.	24	the '70s and '80s.
25	MR. LAWRENCE: Exactly.	25	Q. If there's something specific
	Page 43		Page 45
1	D. Babbel	1	D. Babbel
2	Q. I would say you don't have to go	2	that you want to point to I'm just trying
3	back before 2002.	3	to avoid you having to go through every
4	A. On page 23, it's "Extracting	4	particular option.
5	Probabilistic Information from the Price of	5	A. Sure, there's one. In the back.
6	Interest Rate Options" from the Journal of	6	I guess the first time I wrote
7	Business paper.	7	about it was actually my doctoral
8	Very relevant would be "The Price	8	dissertation. That's 1978. That's one of the
9	Pressure Hypothesis and Off-the-Run Treasury	9	books. So that would be inflation and
10	Bonds."	10	indexation. So that uses forward rates.
11	Q. What page are you on?	11	And I also have another important
12	A. Twenty-four.	12	one in 1983, approximately; which is,
13	(Document review.) I'm sure to a	13	"Duration and the Term Structure of Interest
14	financial economist the next three papers	14	Rate Volatility." That paper led to my hiring
15	would be relevant.	15	by Goldman Sachs.
16	Q. The three "Fair Value of	16	"Real Immunization with Index
17	Liabilities"?	17	Bonds," 1984, that was me showing how to value
18	A. Yes.	18	index bonds before they existed, using forward
19	(Document review.) I don't know	19	curves and spot curves.
20	about the "Financial Engineering and	20	"The Term Structure of Interest
21	Structured Products."	21	Rate Volatility: A Binational Comparison"
22	The "Financial Markets,	22	anyway, that's enough. There are probably
23	Instruments and Institutions" is very	23	about ten more. So I have maybe 20 papers
24	relevant.	24	total.
25	Q. Are you two the sole authors, or	25	Q. Thank you.

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	-	4	-
1	D. Babbel	1	D. Babbel
2	So, you've testified in quite a	2	floating rate instruments and perpetual
3	number of cases in the past four years as	3	floaters, and the tax implications.
4	identified in your disclosure.	4	Q. What was the subject of your
5	Is that fair?	5	expert testimony?
6	A. Yes. I left off the most	6	A. On the floating rate instruments
7	important one, that's a journal, "Financial	7	and their value and whether that value was
8	Engineering."	8	correctly assigned to the tax elements.
9	MR. TAMBE: Going back to the	9	Q. So how part of your testimony
10	articles?	10	related to the proper method to value certain
11	THE WITNESS: Yes.	11	floating rate instruments. Is that right?
12	A. Let's see when that was. It even	12	A. Yes.
13	has forward in the title of the paper.	13	Q. What floating rate instruments
14	Q. It looks like on page 26 it's	14	did you opine about in terms of value?
15	talking about quantity-adjusting options and	15	A. Perpetual floaters and when they
16	forward contracts?	16	were divided into certain tranches: a forward
17	A. Yes.	17	tranche and a present tranche.
18	Q. Okay. Thank you.	18	Q. Did the valuation methodology
19	What percentage of your time over	19	differ depending upon whether you were valuing
20	the past four years have been spent doing	20	the forward tranche versus the present
21	expert witness work?	21	tranche?
22	A. Maybe 15 percent. That's a broad	22	A. No. It's the same methodology.
23	guess.	23	Q. And what is the methodology that
24	Q. And you've listed a number of	24	you advocated for in terms of valuing these
25	cases that you've been involved in. I want to	25	perpetual floating rate instruments?
	Page 47		Page 49
1	D. Babbel	1	D. Babbel
2	go over a few of those at least briefly.	2	A. Well, in both cases, you use the
3	A. Sure.	3	term "structure of interest," the spot and
4	Q. The first is Salty Brine 1 v.	4	forward rates to value them.
5	United States of America.	5	Q. Would those instruments that
6	Do you recall testifying as an	6	could be transacted in the market at the time
7	expert in that case?	7	that was in dispute, the time of valuation?
8	A. Yes.	8	A. The market had deteriorated for
9	Q. What side did you testify for?	9	those instruments, but they could still be
10	A. The government.	10	valued.
11	Q. And what was the nature of the	11	Q. And how did you value them in a
12	dispute there?	12	deteriorating market?
13	A. It involved phantom insurance	13	A. You could still value them with
14	policies and tax avoidance.	14	the underpinning spot and forward rate curves.
15	Q. And did your testimony in that	15	Q. And were you looking at the spot
16	case involve the validity of the forward	16	and forward rate curves for those particular
17	curve?	17	instruments, or were you looking for the
18	A. No.	18	curves the spot and forward rate curves for
19	Q. Next case is Principal Life	19	what you opined were like instruments?
20	Insurance Company v. USA. Which side did you	20	MR. TAMBE: Objection to the form
21	testify there?	21	of the question.
22	A. Principal Life.	22	A. I don't recall. It was, like,
23	Q. And what generally was the	23	years ago, or something.
24	dispute?	24	Q. Do you recall how that case was
25	A. It related to the valuation of	25	resolved?

	Page 50		Page 52
1	-	1	
1 2	D. Babbel A. The Internal Revenue Service	1 2	D. Babbel
3		3	A. On the appropriate pricing of the life settlements.
4	stopped stopped all action. I don't know	4	Q. Now, you use the term pricing
5	why.	5	rather than valuation. Is that an intentional
6	Q. Okay. A. And I don't know if it's going to	6	distinction in your mind?
7	A. And I don't know if it's going to resume at some point.	7	A. No.
8	Q. The next case listed is Razorback	8	Q. And how did you go about valuing
9	Funding v. Scott Rothstein. What side were	9	the pricing of the life settlements?
10	you on in that case?	10	A. Well, I think that would take the
11	A. TD Bank.	11	rest of the deposition, a lot of time to go
12	Q. And what was the nature of the	12	through that.
13	dispute?	13	Q. Did it involve the use of spot
14	A. It was a Ponzi scheme related to	14	and forward rates?
15	sexual harassment claims where there were no	15	A. We certainly used spot rates.
16	victims or claimants. It was all fictitious.	16	Q. We can move on then.
17	Q. And what was the nature of your	17	MR. TAMBE: Is this a good time?
18	testimony?	18	It's almost 11:15. I just need to take
19	A. I looked at the rates of return	19	a break for a call.
20	that were promised, which were somewhere	20	MR. LAWRENCE: Sure.
21	between 800 percent and 5,000 percent over a	21	(Recess taken from 11:13 a.m. to
22	three-month time period, and then suggested	22	11:36 a.m.)
23	that sophisticated investors might think that	23	BY MR. LAWRENCE:
24	there's something awry to have a risk-free	24	Q. We were going through the cases
25	investment that was offering those sorts of	25	in which you had testified, and the next case
	Page 51		Page 53
1	D. Babbel	1	D. Babbel
2	rates.	2	identified by counsel for Lehman is Kim Nolte,
3	Q. Okay. Let's move to Claston, LLC	3	Sherry Lewis on behalf of the CIGNA 401(k)
4	v. USA. What side did you testify for in that	4	plan v. CIGNA.
5	case, if you recall?	5	Do you recall that case?
6	A. I don't remember that.	6	A. Yes.
7	Q. Claston, LLC, by and through	7	Q. Which side did you testify for?
8	Sunset Holdings, LLC v. USA?	8	A. On the side of CIGNA.
9	A. Okay. I was on the USA side.	9	Q. And what was the nature of the
10	Q. And what was the nature of that	10	dispute?
11	dispute?	11	A. It had to do with the stable
12	A. That was fraudulent taxation.	12	value investment fund and whether the rates
13	Q. What was the nature of your	13	generated were appropriate for their 401(k)
14	testimony?	14	plans.
15	A. That it was fraudulent.	15	Q. And what was the nature of your
16	Q. Ritchie Risk-Linked Strategies	16	testimony?
17	Trading v. Coventry First, LLC. What side	17	A. They actually were better than
18	were you on?	18	just about any player in that market.
19	A. Coventry.	19	Q. In terms of the rates that were
20	Q. What was the nature of that	20	being offered?
21	dispute?	21	A. Yes.
22	A. That was on the sale of life	22	Q. The next case is World Holdings,
23	settlements to a hedge fund.	23	LLC v. Federal Republic of Germany. What side
•		0.4	
24	Q. And what was the nature of your	24	did you testify on behalf of?

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1	-	1	
1	D. Babbel	1 2	D. Babbel
2	Q. And what was the nature of that	3	when the market knew about the insolvency and
3	dispute?	3 4	what the prices were at that time, that moment. Whatever the instruments were, I
4 5	A. Gold bonds.	5	· · · · · · · · · · · · · · · · · · ·
6	Q. And was the nature of your	6	forget.
	testimony?	7	Q. How did you go about determining
7	A. What their value would be in		when the market knew about the Lehman
8	today's dollars. They were from the pre-Nazi	8 9	bankruptcy?
9 10	era.	10	A. Well, we looked for the reports that came out at that time. And it was
	Q. Similar to the Confederacy issue?	11	
11	A. No, because they actually have	12	important, actually, what hour of the day when
12 13	backing and the governments are paying.	13	it went across the wires, and so we diagnosed all of that.
14	Q. What was your testimony as far as	14	
15	how you go about valuing these bonds?	15	Q. So do I understand you were
16	A. Well, they were linked to gold	16	trying to find a minute, so-to-speak, in time when the market was informed about the Lehman
17	prices. So I just looked at what the promises	17	
18	were and the language, and I could value it.	18	bankruptcy in order to look at the price, I
19	Q. So there was no strike that.	19	guess, immediately before that? A. I don't remember that. But I do
20	Did you look at a valuation as of	20	remember that we had to look at a very fine
21	a particular date or a valuation strike	21	amount of time. So I don't remember if it was
22	that.	22	
23	Did you look at valuation into the future at all?	23	a minute before, a minute after, or whatever.
24	A. No.	24	Q. You're trying to find what the market conditions what the market value of
25		25	these instruments were at that moment in time?
23	Q. So all the gold price data that	23	
	Page 55		Page 57
1	D. Babbel	1	D. Babbel
2	you utilized was known and verified from	2	A. Yes.
3	actual market transactions. Correct?	3	Q. Again, you were looking at actual
4	A. It was.	4	market data from the past rather than
5	Q. The next case is Individual	5	predictive market data for the future.
6	Investors v. Bankinter B-a-n-k-i-n-t-e-r	6	Correct?
7	S-a?	7	MR. TAMBE: Objection to the
8	A. Yes.	8	form.
9	Q. And which side did you testify	9	You can answer.
10	for?	10	A. I don't know that. As I sit
11	A. On the side of Bankinter.	11	here, it seemed to me the markets were very
12	Q. What was the nature of the	12	thin, and I can't remember what we had to do
13	dispute?	13	in this case, if we had to interpolate or
14	A. It had to do with the insolvency	14	what. I just don't remember. But it's in
15	of Lehman Brothers and what kind of remedial	15	Spanish.
16	actions that plaintiffs should take, and as of	16	Q. Did you testify in Spanish?
17	what date they should take them.	17	A. My testimony is in Spanish. I'm
18	Q. What was the role of how did	18	fluent in Portuguese, but I wrote it in
19	Lehman play in that case?	19	English. It was translated by an official
20	A. Just the investors had purchased	20	translator, and that's all I know.
21	some funds through Bankinter from Lehman	21	Q. Ormande v. Anthem, Inc. What
22	Brothers.	22	side did you testify on behalf of?
23	Q. And what was the nature of your	23	A. The class, Ormande.
24 25	testimony?	24	Q. And what was the nature of the
. / 5	A. It was just establishing the time	25	dispute?

	D 50		5 60
	Page 58		Page 60
1	D. Babbel	1	D. Babbel
2	A. Had to do with an initial public	2	other matters other than this matter?
3	offering.	3	A. No.
4	Q. And what was the nature of your	4	Q. Are you retained by Jones Day in
5	expert testimony?	5	any other matters other than this matter?
6	A. That's going back. It's one of	6	A. No.
7	the most complicated cases I've been involved	7	Q. Have you ever conducted going
8	in. I recall that there was no due diligence	8	back through your entire history of expert
9	done on the initial public offering price by	9	witnesses, have you ever conducted a lost
10	the people who were supposed to certify it.	10	profits calculation?
11	And had they done a decent job,	11	MR. TAMBE: Objection to the form
12	they would have come up with they wouldn't	12	of the question.
13	have left so much value on the table for the	13	A. I'm almost sure I have. But as I
14	old shareholders. That's the gist of it.	14	sit here, I can't point to a case unless I
15	Q. Stephens v. American Equity	15	look through all the cases. You gave me the
16	Investment.	16	last four years or five years' worth. But I'm
17	A. Yes.	17	sure I have.
18	Q. What was that case about, and	18	Q. Do you recall how you conducted
19	which side did you testify for?	19	the lost profits analysis?
20	A. I testified on the case of the	20	A. No. I imagine I know I've
21	defendant in that case. And the case boiled	21	looked at lost profit calculations. I may
22	down to what was the point size of type in an	22	have done some, but I don't recall.
23	insurance policy for surrender fees, and what	23	Q. How would you go about conducting
24	is the front page. There was a law in	24	a lost profit analysis?
25	California. Point size had to be a particular	25	MR. TAMBE: Objection to the form
	Page 59		Page 61
1	D. Babbel	1	D. Babbel
2	size, bold, and on the front page.	2	of the question.
3	And there were three definitions	3	A. It would depend so much on
4	of front page. There's boilerplate pages, and	4	circumstances particular, you know, to the
5	there's the terms page, which insurers call	5	case. So I don't have, like, a general way of
6	front page. Then they put it on that page.	6	doing it.
7	But the plaintiffs acknowledge it	7	Q. Do you recall whether or not you
8	should have been on the boilerplate page, and	8	engaged in such analysis with respect to a
9	they stated: "Surrender fees 55 times the	9	contract that was breached?
10	document."	10	A. I don't recall.
11	The plaintiff said, "Well, I	11	Q. You indicate in your report that
12	never opened the document."	12	you assisted leading firms in the development
13	So, anyway, she's a Berkley	13	of software for the valuation of assets and
14		14	liabilities.
	engineer.		
15 16	Q. James Jeffrey v. London Life	15 16	Do you recall that?
16	Insurance Company. What side did you testify on behalf of?	17	A. Yes.
17	I		Q. Which firms have you assisted in
18	A. London Life Insurance.	18	the development of software for the valuation
19	Q. What was the nature of that	19	of assets and liabilities?
20	dispute?	20	A. Winklevoss, the father of the
21	A. It was a merger between two	21	twins that are so famous, he has one of the
22	companies and had to do with the rates of	22	biggest pension evaluation operations. I did
23	return that were provided on their insurance	23	for Goldman Sachs. Our method was used by
24	policies before and after the merger.	24	Salomon Brothers for forward contracts in
25	Q. Are you retained by Lehman in any	25	quantity adjusting options.

	Page 62		Page 64
1	D. Babbel	1	D. Babbel
2	I did for Swiss Re, for their	2	A. Yes.
3	annuities that's where I actually did the	3	Q. Is that a way is that an
4	software and many other companies, in terms	4	element that reflects the counterparty risk in
5	of the approaches to take.	5	a, for example, forward purchase agreement?
6	Q. Have you ever consulted on the	6	MR. TAMBE: Object to form.
7	risks associated with entering into forward	7	Q. In terms of pricing?
8	purchase agreements?	8	MR. TAMBE: Same objection.
9	MR. TAMBE: Object to the form of	9	A. Counterparty risk is part of a
10	the question.	10	forward agreement between two parties, and
11	You can answer.	11	it's taken into account through negotiations.
12	A. That were consulted on it?	12	And it also depends on it can evolve over
13	Q. Yes.	13	time. It depends on who's in the money and
14	A. No. I've taught on it. I don't	14	who's not.
15	remember consulting on it. I may have.	15	But a typical agreement at the
16	Q. Tell me, in terms of that	16	beginning is done on a par basis. But there
17	teaching that you just described, what do you	17	can be credit charges as part of that.
18	teach about the risk of forward purchase	18	Q. So if the dealer perceives that
19	agreements?	19	the counterparty has a greater potential for
20	A. Well, I took a two-week course in	20	default, that would result in a larger credit
21	Bank of America on that when I was a professor		charge. Is that fair?
22	at Berkley. And from even before that date, I	22	A. It could.
23	was teaching how to price those sorts of	23	Q. Have you ever hedged a forward
24	contracts. That would be 1978-79.	24	purchase agreement?
25	I took the course in about 1980.	25	A. I guess I have.
	Page 63		Page 65
1	D. Babbel	1	D. Babbel
2	And they were more complex forward purchase	2	Q. Tell me about that.
3	agreements than the current contract because	3	A. It's a homemade version. But I
4	they involved multiple countries and	4	had a bonus that was an escalating bonus that
5	currencies. So I taught that for years.	5	went over five years. And because I had the
6	Q. You agree that there are risks	6	chance of leaving the firm, I decided to hedge
7	involved in forward purchase agreements.	7	it all because I had to return part of it if I
8	Correct?	8	left.
9	A. Sure.	9	So I used forward rates and I
10	Q. And is there, in terms of have	10	used interest rate caps and I got caplets for
11	you been involved in pricing for forward	11	each of the five payments. It was a
12	purchase agreements?	12	substantial amount, and so I needed to do
13	MR. TAMBE: Object to the form.	13	that. So I did. I hedged it.
14	You can answer.	14	Q. And the purpose of hedging is to
15	Q. That is how a dealer should price	15	try to lock in the perceived rates that you
16	a forward purchase agreement?	16	were going to the return you were going to
17	A. I have in the case of the	17	otherwise obtain from these five years of
18	contracts I just mentioned, yes.	18	bonus payments. Is that right?
19	Q. And what how do you account	19	MR. TAMBE: Objection to form.
20	for risk in the pricing of a forward purchase	20	You can answer.
21	agreement?	21	A. The purpose was: If I walked
22	A. Well, there's, counterparty	22	away, I would have to come up with some amoun
23	risks. That's the major one.	23	to give the firm back and the interest rates
24	Q. Are you familiar with the term	24	could change during the interim. So I hedged
25	"credit charge"?	25	it.

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1 D. Babbel	1 D. Babbel	
2 Q. Hedging is to protect against	2 entity. I was dealing with regular	
3 interest rate fluctuation. Is that fair?	3 corporations who happen to own municipal	ıl deht
4 A. That's right.	4 Q. Right. I'm talking about on the	ı ucu.
5 Q. But in terms of your work for	5 other side of the deal. In other words, you	
6 financial institutions, you've never hedged a	6 have advised people who have, as you said	
7 deal for Goldman or any other dealer. Is that	7 considered assets that are municipal debt a	
8 right?	8 considered assets that are corporate	iiu
9 A. I've told them how to hedge it.	9 debt, I assume. Correct?	
10 I didn't do the transaction. I helped a lot	10 A. Yes.	
of institutions on that.	11 Q. How is the fact that you're	
12 Q. So they will present you with an	dealing with municipal debt as opposed to	
13 instrument, and you will give advice as to how	8	
to hedge the risks associated with that	14 A. It's sensitive in its price	
15 instrument?	movement, the value of the municipal bone	de to
16 A. Or a portfolio, yes.	interest rates that take into account a tax	us, to
17 Q. And with respect to those	17 treatment factor.	
18 instruments, the purpose of the hedge like	18 Q. Other than that, any differences?	
19 for your personal hedge was to try to	19 A. Well, there's a lot of kinds of	
20 address the interest rate risks associated	20 municipal debt, if it's a full faith and	
21 with entering into a transaction. Is that	credit or if it's a revenue bond. They even	
fair? Or a portfolio of transactions?	have financial very short-term financial	
23 A. Yes.	23 payment.	
24 Q. Did has any of your work	24 Q. And revenue bonds are considere	ıd.
25 involved analyzing transactions with or	25 more riskier that full faith bonds. Correct?	
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		, 0,5
D. Babbel	D. Babbel	
2 potential transactions with municipal	2 MR. TAMBE: Objection to the	
3 government entities?	3 form.	
A. I've had to calculate the ratios	4 A. It depends on the source of	
5 that companies would need to use to hedge	5 revenue and the municipality standing bel	ıınd
6 municipal debt.	6 it. They could be safer.	
7 Q. Explain that.	7 Q. With putting aside the exception	,
8 A. Well, I'm an asset liability	8 such as Detroit, if you have a relatively	C 11
9 management specialist. And so when a	9 healthy municipality, would you say that	full
financial institution has, among in their	faith in credit bonds tend to be safer than	
assets, municipal debt, it has particular	11 revenue-backed bonds?	ļ
sensitivities in their value to movements in	MR. TAMBE: Same objection.	2.52
13 their interest rates.	13 A. You have to be more specific that	
14 And I had to look at that and	that question. Name the municipality and	пате
estimate its sensitivity and what kind of	the source of revenue. If it's a Bridge at	4
16 liabilities if they had those kind of	Turnpike revenue, pretty solid, versus, no	
assets, what kind of liabilities would be	just Detroit but eventually California citie	S.
appropriate and how they should price those.		
19 Q. How does the fact that you're	credit rating all over the map, but the	
dealing with a municipal entity change or	revenue bonds are dependent upon the sou	arce of
1. (1) alter the third view of the confidence $A = 1$ (1)	revenue.Q. So with assessing that type of	
alter the thinking than if you're dealing with	1 22 O. So with assessing that type of	
a corporate entity that you were doing the		+h ~
22 a corporate entity that you were doing the transaction with?	thing, you really want to know very much	
a corporate entity that you were doing the		

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1	D. Babbel	1	D. Babbel
2	A. If I'm investing in a security,	2	MR. TAMBE: Objection to the form
3	I'd like to know the risk behind it.	3	of the question.
4	Q. Or if you're advising someone	4	A. People use tools to evaluate
5	about an investment securement, you want to	5	whether they are good deals or not. There
6	know the specific risks involved in that	6	are the better tool you have, the better
7	instrument. Correct?	7	assessment you can make.
8	A. Yes.	8	Q. And I assume you're in favor of
9	Q. In this case, does your opinion	9	model-based tools as opposed to intuition?
10	depend upon the specific risk associated with	10	A. That's my training.
11	the RFA, Reserve Fund Agreement, at issue?	11	Q. That's what you research and
12	A. My specific opinion is that	12	write about?
13	forward rates are used in valuation of swaps,	13	A. That's right.
14	and that doesn't change.	14	Q. You would agree that the events
15	Q. I understand that. But have you	15	in fall 2008, that are sometimes known as the
16	looked at have you read the Reserve Fund	16	"Great Recession" have you heard that
17	Agreement in this case?	17	terminology before, the "Great Recession"?
18	A. I did.	18	A. I have.
19	Q. Does your opinion depend at all	19	Q. Do you agree the Great Recession
20	on the specific details of that instrument?	20	has caused substantial disruption in the
21	MR. TAMBE: Objection to the	21	markets?
22	form.	22	A. I do.
23	You can answer.	23	Q. How so?
24	A. That instrument is gone.	24	A. The liquidity in some markets was
25	Q. Right.	25	quite limited. Pricing was more difficult to
	Page 71		Page 73
1	D. Babbel	1	D. Babbel
2	A. It's ineffective. So you're just	2	do in those sorts of markets.
3	looking at what the residual cash flows would	3	Q. Why was pricing more difficult to
4	have been, one way or the other, and evaluate	4	do?
5	that. But the rest of the instrument is gone.	5	A. Sometimes you would have to go to
6	Q. In your experience, is there any	6	models if you couldn't find live transactions.
7	difference in the way that academics or	7	Q. What and maybe I'm wrong. But
8	researchers, such as you, would approach	8	I assume that models tend to use live
9	values as opposed to a trader on the floor?	9	transaction data as the data points that are
10	MR. TAMBE: Objection to the form	10	input into the model. Correct?
11	of the question.	11	A. That's correct.
12	A. It depends, truly, on the trader.	12	Q. So explain to me the distinction
13	Some traders use rules of thumb. Some use	13	you were making between going to models rather
14	very technical models.	14	than using live transactions?
15	And so I've worked with the	15	A. Yes.
16	people that were in charge of investing	16	MR. TAMBE: Objection to the form
17	Goldman Sachs' own capital. They use the most		of the question.
18	sophisticated models in the world. Whether	18	You can answer.
19	all the traders understand and are beholden to	19	A. I just said, "Models are based on
20	those models, I don't know. But I don't think	20	live transactions." Those are the inputs for
21	SO.	21	the models. The models are ways for
22	Q. What is a consequence of the fact	22	interpolating between dates and across
23	that certain people are trading based on	23	instruments.
24	models versus rules of thumb or other	24	There's a lot of information.
25	nonmodel-based perspectives in the market?	25	There was always a lot of information in the

Page 74 Page 76 1 D. Babbel 1 D. Babbel 2 market for pricing securities. That doesn't 2 actual transaction on a particular day because 3 mean every single security would attract 3 that tells you what market -- what is traders at any given moment. 4 happening in the market in real time. 4 5 5 But that doesn't -- it also Correct? 6 doesn't mean that you can't put a value on 6 MR. TAMBE: Objection to form. 7 that instrument based upon value of cash flows 7 A. You're mixing a little bit of the 8 and the timing of cash flows, which we can do 8 time. If you look on a particular day, that 9 through the term structure of interest rates. 9 doesn't tell you what something's worth. That 10 tells you what something was worth at the 10 Q. I want to try to make sure I understand the distinction you're drawing. 11 11 moment that it traded. Right? You can certainly look at an instrument and 12 12 So you have some data that is 13 look at its anticipated cash flows. Correct? 13 relevant for what happened in the past. But 14 MR. TAMBE: Objection to the 14 if you have quotes available for the current 15 form. 15 time, that's different than whatever the past 16 data happened to say, typically, if the price 16 You can answer. is -- the prices are moving all the time. 17 A. You can look at an instrument if 17 18 it has promised cash flows. You can model Q. What I'm trying to understand is 18 19 19 the distinction you're making between the Q. When you say "model that," you 20 20 situation where you don't have live don't really need to model it because you 21 21 transactions, when you have to resort to 22 have -- if you have a guaranteed cash flow, 22 modeling. Can you give me an example? you have a guaranteed cash flow. It's just 23 23 A. When you say "live 24 inputting those guaranteed flows into a model. 24 transactions" --25 Correct? 25 Q. I think that was your Page 75 Page 77 1 D. Babbel 1 D. Babbel 2 A. That's what I thought I said. 2 terminology. That's what I mean by "model." You put them 3 3 A. Okay. But live transactions, into a formula and then you discount them and there's two ways to think of it. A 4 4 5 you add their values. 5 transaction that was live and just happened or 6 6 a transaction that's available to happen now. Q. So in terms of what I think you Which do you mean? 7 were saying before and distinguishing between 7 talking about -- sorry -- the impacts of the 8 8 Q. You used the terminology. So you 9 9 great recession on the market, you indicated tell me what you meant when you used the 10 that there are certain instruments that 10 terminology. because of lack of live transactional data, A. Well, if you have transactions, 11 11 bids and asks prices for instruments available 12 you would have to go to models. I'm still 12 trying to understand that. now, that's more important than if you had 13 13 14 When you have a floating rate 14 something two minutes ago, stale data. 15 instrument without sufficient market 15 That doesn't mean that the stale 16 transactions to give you valid data points, 16 data won't give you at least an indication of 17 how do you use a model to come up with an 17 what it might be worth, depending on what's 18 happened in the interim. There's some events 18 alternative? that can happen in a very short period of time 19 A. I don't know of any period during 19 20 the great recession when we didn't have 20 that change the value substantially. 21 sufficient data to model something with 21 Q. When a person generates a forward 22 curve, should they be looking at the bid and floating interest rates. We did. 22 23 Q. So do I -- just -- just so I 23 ask numbers at a given point or should they be understand what you were saying before is: looking at actual completed transaction at a 24 24 25 The preference always is to go and look at the given point or some combination thereof?

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1	D. Babbel	1	D. Babbel
2	MR. TAMBE: Objection to the form	2	But the yield that you get from
3	of the question.	3	that particular instrument, treasury bond, is
4	A. Who's looking?	4	particular only to that treasury bond. So you
5	Q. Who's looking? Say, a dealer	5	have to extract from that yield to maturity
6	trying to price an instrument.	6	something that's useful, which is a spot rate.
7	A. So the dealers will look at the	7	And the yield to maturity on a
8	ask side. They also look at the bid side too.	8	treasury bond is that you're not going to
9	A lot of markets are very tight where the	9	like this a dollar duration weighted
10	difference is minuscule.	10	average of the underlying spot rates or
11	Sometimes you'll get a quote	11	forward rates. And the dollar duration
12	where there's no difference. But yeah, they	12	ratings depend upon that particular
13	should look at the forward rates and spot	13	instrument, which is unique to that
14	rates if those are relevant to whatever	14	instrument, and they don't apply to any other
15	instruments that they're concerned with.	15	instrument.
16	Q. If you're doing an interest rate	16	That's why you can't use yields
17	curve, a forward curve on interest rates for,	17	to maturity on a bond to price to another
18	say, T-Bills. Walk through how you generate	18	bond, not if you're vigorous. You decompose
19	your forward curve. What data points do you	19	it to the underlying spot rates which you can
20	input?	20	use for any other instrument and their
21	A. On T-Bills you have T-Bills of	21	associated forward rates, which again are two
22	various maturities going out through 360 days.		sides of a different coin.
23	It's not a very interesting curve but	23	Q. So you have a bond, and you see
24	Q. Let's take in a security that can	24	what the prices are for someone purchasing the
25	go out you can buy for one year three	25	bond of the maturities out on different
	D 70		
	Page 79		Page 81
1	D. Babbel	1	D. Babbel
1 2	_	1 2	D. Babbel bonds for three months, six months, five
	D. Babbel		D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct?
2 3 4	D. Babbel months up to thirty years.	2	D. Babbel bonds for three months, six months, five
2 3 4 5	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond	2 3 4 5	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions
2 3 4 5 6	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a	2 3 4 5 6	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a
2 3 4 5 6 7	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the	2 3 4 5 6 7	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct?
2 3 4 5 6 7 8	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as	2 3 4 5 6 7 8	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes.
2 3 4 5 6 7 8 9	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the	2 3 4 5 6 7 8 9	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to
2 3 4 5 6 7 8 9	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin.	2 3 4 5 6 7 8 9	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of
2 3 4 5 6 7 8 9 10	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an	2 3 4 5 6 7 8 9 10	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates.
2 3 4 5 6 7 8 9 10 11	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if	2 3 4 5 6 7 8 9 10 11	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct?
2 3 4 5 6 7 8 9 10 11 12 13	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that	2 3 4 5 6 7 8 9 10 11 12	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes.
2 3 4 5 6 7 8 9 10 11 12 13	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates	2 3 4 5 6 7 8 9 10 11 12 13	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't
2 3 4 5 6 7 8 9 10 11 12 13 14 15	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates.	2 3 4 5 6 7 8 9 10 11 12 13 14	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates. Now, the reason I say that is because the yield is particular to that instrument and no other instrument on Earth. It reflects the particular cash flows and the timing of the cash flows and the size of the	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those transactions to generate a spot rate? A. There's something called "bootstrapping," which is the oldest and most common method, where you're able to determine what spot rates were associated with that bond
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates. Now, the reason I say that is because the yield is particular to that instrument and no other instrument on Earth. It reflects the particular cash flows and the timing of the cash flows and the size of the cash flows of that instrument.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those transactions to generate a spot rate? A. There's something called "bootstrapping," which is the oldest and most common method, where you're able to determine what spot rates were associated with that bond to create the particular yield to maturity.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates. Now, the reason I say that is because the yield is particular to that instrument and no other instrument on Earth. It reflects the particular cash flows and the timing of the cash flows and the size of the cash flows of that instrument. Now, closely related to other	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those transactions to generate a spot rate? A. There's something called "bootstrapping," which is the oldest and most common method, where you're able to determine what spot rates were associated with that bond to create the particular yield to maturity. And it's an iterative process.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates. Now, the reason I say that is because the yield is particular to that instrument and no other instrument on Earth. It reflects the particular cash flows and the timing of the cash flows and the size of the cash flows of that instrument. Now, closely related to other instruments, the timing of the cash flows	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those transactions to generate a spot rate? A. There's something called "bootstrapping," which is the oldest and most common method, where you're able to determine what spot rates were associated with that bond to create the particular yield to maturity. And it's an iterative process. You start with one bond, like the treasury
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel months up to thirty years. A. What data do you take? Q. Yeah. A. You take you have the bond prices. Associated with the bond prices, is a yield. It can be calculated. Sometimes the bonds are even quoted in terms of yield as opposed to price. They're two sides of the same coin. Those yields are particular to an instrument. And what you need to do, if you're going to price anything other than that instrument, you have to calculate spot rates and forward rates. Now, the reason I say that is because the yield is particular to that instrument and no other instrument on Earth. It reflects the particular cash flows and the timing of the cash flows and the size of the cash flows of that instrument. Now, closely related to other	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel bonds for three months, six months, five years, ten years, twenty years. Correct? A. Yes. Q. And you can look at transactions and figure out what the yield was for a particular transaction. Correct? A. Yes. Q. Okay. And then you're trying to extrapolate out information from those sets of transactions to yield the spot rates. Correct? A. Yes. Q. And again, because I don't want to make an assumption do you use those transactions to generate a spot rate? A. There's something called "bootstrapping," which is the oldest and most common method, where you're able to determine what spot rates were associated with that bond to create the particular yield to maturity. And it's an iterative process.

Page 82 Page 84 1 D. Babbel 1 D. Babbel 2 appropriately. 2 Q. You gave the example in your 3 It's not a discount -- it's 3 report of the runner with the hundred-yard 4 4 usually reported on a discount basis, but you dash 5 5 can turn that into a yield maturity. It's one Yes. 6 in the same thing. You can take that treasury 6 And I assume the point there was O. 7 bill and go out and mature. Now, you have a 7 that if you know the time or the yield at the 8 8 end of the hundred yards and you know the time bond with coupons. 9 So its yield isn't helpful, but 9 or the yield at the end of fifty yards, you its price is. You know what the price of the 10 can extrapolate and figure out the yield or 10 whole bond is. You know what the market is time for the final fifty yards. Correct? 11 11 A. That was the idea. 12 telling you the first years' worth is because 12 13 we have certainty on that. 13 The same way with respect to a 14 So it just takes algebra to 14 security or an instrument. If you know what 15 figure out the forward rate, and also the spot 15 the yield is through nine years, you know what rate, for two years. Once you've figured out 16 the yield is through ten years, you can 16 that, you can continue on out three, four, extrapolate what the one-year yield would be 17 17 if you purchased a year nine. Correct? 18 18 five --A. You can. But it's a little more 19 You don't even really need to do 19 20 that now in zero-coupon bonds because it tells 20 complicated because unless it's a zero-coupon 21 21 you all the way out to thirty years what bond, it would be akin to the runner getting 22 everything is worth on a quarterly basis. 22 to the 50-yard line and throwing off his water Q. So how do you use that 23 bottle and then running the rest of it, and 23 information -- let's say you want to assess an 24 24 throwing off coupons. 25 agency security in the yield --25 And so it takes someone with a Page 83 Page 85 1 D. Babbel 1 D. Babbel 2 2 A. Yes. little bit of skill to do this. And there are 3 Q. -- how would you go about using 3 readily available programs now to do it. 4 the information? Do you use the information 4 Q. How do you account for the 5 5 from the treasuries for the agency securities difficulty you described, sticking with the 6 6 agency securities? You have market analysis? 7 7 A. You could, but then you'd have to information for nine, you have market add a spread, because it's not the same 8 8 information for ten. 9 9 market. That spread would be a positive You're trying to figure out what 10 10 someone nine years from now could yield on a spread. one-year treasury -- I'm sorry -- one-year 11 But the agency market is really 11 12 quite rich in data. So you can also use a 12 agency. How do you go about making that? You bootstrapping method, but you're going to have 13 said there's some complication to it, and you 13 would have to make adjustments? 14 some voids because it's not as deep as the 14 treasury market. You have to interpolate. 15 15 A. Because the cash flows aren't one 16 Q. And how do you interpolate those 16 time per year. They are typically semi-annual missing data points in the agency market? 17 17 cash flows. Some you can even have quarterly. A. Well, the Treasury produces a 18 Q. Right. 18 formula for doing that, and it's very useful 19 A. But most bonds are semi-annual. 19 20 20 for the agency market as well. It shows you So if you're trying to get between year, say, 21 exactly how they interpolate and they publish 21 nine and ten, and you have instruments on both 22 22 dates, but you don't have one on nine and a these things every day. 23 The market is actually interested 23 half years, you have to make an interpolation in these things every minute. So there are 24 for a nine-and-a-half year rate. 24 25 other programs that will do that. 25 Q. How do you do that?

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1	D. Babbel	1	D. Babbel
2 3	A. Well, the published programs are	2	buying or selling, and it doesn't really have there's no necessary link between that and
4	quite available, and they typically follow a curve that best explains all of the data	4	predictions.
5	points where you have current quotations.	5	Q. So it's not a predictive tool?
6	Q. And is it always a curve rather	6	A. People sometimes use it as a
7	than straight line between two data points?	7	predictive tool if they have various theories
8	A. To the to the eye, some of it	8	that they want to try to predict things.
9	might look like a straight line when you get	9	I mean, people are always trying
10	out far enough.	10	to predict things in the market. They're
11	Q. But, technically, there's always	11	looking for an edge. Forward rates, I've seen
12	some curvature in there?	12	it used before as a predictive tool.
13	A. Technically, yes.	13	Q. Do you think it's an appropriate
14	Q. So the forward curve depends on	14	predictive tool to predict what, in fact,
15	market data. Correct?	15	interest rates will be five years out?
16	A. Yes.	16	A. Is it an appropriate tool? It
17	Q. And it gives you it gives you	17	embeds all the information we currently have
18	information based on market expectations of	18	about the future. So if you have more
19	future interest rates. Correct?	19	information somehow that the market doesn't,
20	A. There are theories. If you take	20	you wouldn't want to use a forward rate.
21	a couple of steps and are willing to make a	21	If you did use a forward rate,
22	bunch of assumptions, you could you could		the question is: Is it a predictor of the
23	try to say that, yes.	23	future short rate? Not necessarily.
24	Q. You could, as opposed to what?	24	You have to invoke a whole
25	A. Well, the forward curve tells you	25	architecture of theory. One has to do with
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1	D. Babbel	1	D. Babbel
2	what the price of making a commitment is in	2	the risk aversion. One has to do with risk
3	the future. It tells you what rate you need	3	preference, liquidity preference there are
4	to be able to transact at. And then that can	4	all sorts of things that people of they're
5	be adjusted for other costs and things like	5	trying to use forward rates to help them
6	that.	6	predict the future, maybe, and they're seeing
7	Q. You would agree, though, that the	7	if they can. But that's not what the forward
8	forward curve is, more often than not, wrong	8	rates about. The forward rates is independent
9	in the sense that it will tell you on day one	9	of that.
10	what the predicted yield will be on year	10	Q. Would you agree that if you took
11	eight. But if you went out to year eight, the	11	a forward rate on a given day, looked at what
12	chances of it actually being that point on a	12	it predicted out for short-term rates over
13	forward curve would be pretty small?	13	time, keep looking at the forward curve
14	MR. TAMBE: Objection to the form	14	generated day-to-day, that the forward curve
15	of the question.	15	would mispredict short-term rates in over 90
16	You can answer.	16	percent of the cases?
17	A. The forward curve doesn't tell	17 18	MR. TAMBE: Objection to the form
18 19	you the predicted value. Like I said, you	18	of the question.
20	need to take a couple of assumptions if you want to do that. And depending on the	20	Q. I won't use the word "predict." The forward curve look at the each day,
21	assumptions, it would come up with different	21	what the forward curve is. Look at then what
22	predicted values.	22	actual short-term rates turn out to be. Would
23	But the forward rate, that's not	23	you agree that the forward curve generates a
20		24	short-term rate that is not accurate more than
2.4	What it's all about the felling voli today's		
24 25	what it's all about. It's telling you today's cost for making a forward commitment either	25	90 percent of the time?

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1 D. Babbel	1	D. Babbel
2 MR. TAMBE: Same objection.	2	Q. That wasn't my question. My
3 A. I think I understand the	3	question is simply: Whether or not you would
4 question.	4	agree that the forward rate predicted on a
5 Let me ask what you mean by	5	given day for eight years out is more likely
6 "accurate."	6	than not going to be different than the actual
7 Q. Meaning, you look at the forward	7	rate on that given day eight years out.
8 curve generated on a particular day, say March	8	MR. TAMBE: Objection to the
9 25, 2009, and you use that forward curve to	9	form.
give you information about what a six-month	10	A. Well, now you said the forward
agency yield might be eight years from now.	11	rate predicted.
12 Correct?	12	Q. I know you don't like to do the
13 A. Correct.	13	prediction work.
Q. And then you now go out eight	14	A. It doesn't predict.
15 years, and you look at what is the actual	15	Q. The forward curve gives you a
six-month yield on that same agency security,	16	number?
17 eight years out.	17	A. It gives you a number, today's
18 So I'm comparing those two	18	price of making a future commitment.
19 numbers: the actual eight years out, and the	19	Q. Right. And you go out eight
20 number generated by the forward curve eight	20	years, and you look to see whether or not the
years earlier. Those numbers would be	21	six-month yield is at the number the forward
different at least 90 percent of the time. Is	22	curve generated.
23 that fair?	23	Would you agree it's more likely
MR. TAMBE: Objection to the form	24	than not that the eight-year-out number is
25 of the question.	25	going to be different than the number that was
Page 91		Page 93
1 D. Babbel	1	D. Babbel
2 A. My question to you is: What do	2	generated by the forward curve?
you mean by "accurate" or "different"? If one		A. You're creating a link where
says 6.23 percent and the other says 6.24,	4	there's no necessary link. Eight years from
5 would that be a failure of prediction?	5	now there's different information, different
6 Q. Let's start with that. Would you	6	prices.
7 agree that in terms of exact numbers	7	The forward rate tells you
8 that it would be different more than 90	8	today's price of making a future commitment.
9 percent of the time?	9	It doesn't tell you the future price of making
10 A. I don't know. If it's more than	10	that commitment. You have to add a whole
11 90 percent	11	bunch of assumptions to get to that point.
Q. If you haven't done that work,	12	Q. Now, the typical oversimplified
13 you can just say, "I don't know."	13	version of modeling is, sort of, the
14 A. That's not how economists look at	14	garbage-in-garbage-out equation, which means
things. Maybe that's what they do in Las	15	that the quality of the data input is
Vegas, point spreads, and things like that.	16	important to understanding the quality of the
We look at market data as a rich source of	17	model. Correct?
information for market consensus of all these	18	A. Yes.
players in the market, and we try to extract	19	Q. And the forward curve model
20 information from that.	20	depends on market data. Correct? The data
But I've never heard 90 percent	21	inputs are market information?
of the time these the forward rates get	22	A. The forward curve does not depend
the are are a deviance with the actual	23	upon market data. The calibration of the
future rate that ensues. That doesn't mean	24	forward curve depends upon market data.
25 forward rates aren't useful.	25	Q. The inputs into the the data

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1	D. Babbel	1	D. Babbel
2	inputs into the forward curve is market data.	2	(Record read.)
3	Correct?	3	THE WITNESS: That's enough. No.
4	A. Yes.	4	So we don't need the rest of the
5	Q. You could input data of the	5	question.
6	opinions of a thousand economists and use that	6	Q. I'm sorry. So what's wrong with
7	instead. Correct?	7	that statement? You said you disagreed with
8	A. You could.	8	it.
9	Q. You could take a thousand people	9	A. That you use all these rates
10	on the street and ask them their view of	10	about what future interest rates will be, and
11	yields, eight years out, and do a forward	11	that could be used to generate a forward
12	curve based on the thousand people on the	12	curve. That implies a prediction of that
13	street. Correct?	13	future rate
14	A. You could.	14	Q. Or I'm sorry.
15	Q. And the usefulness of the forward	15	A as generated based upon
16	curve depends upon its usefulness in the	16	current data. You just need a calculator.
17	market. Correct?	17	You don't need expectations in there.
18	MR. TAMBE: Objection to the form	18	A thousand economists or one
19	of the question.	19	economists, I can do it without any
20	A. It has lots of uses. The market	20	expectations. Just give me a calculator.
21	is one of them.	21	Q. I understand. The word,
22	THE WITNESS: Could you read back	22	"expectations" may be the wrong word. In
23	two questions ago where Mr. Lawrence was		market data, you're doing data on what people
24	talking about going to a thousand	24	are paying for particular instruments that
25	economists which is near and dear to	25	have, you know, dates five, ten, fifteen years
	Page 95		Page 97
	rage 95		
1	D. Babbel	1	D. Babbel
2	D. Babbel my heart because I see an employment	2	D. Babbel out. Correct?
2 3	D. Babbel my heart because I see an employment opportunity here and asking them what	2 3	D. Babbel out. Correct? A. Correct.
2 3 4	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like	2 3 4	D. Babbel out. Correct? A. Correct. Q. With economists, I think you
2 3 4 5	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that?	2 3 4 5	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best
2 3 4 5 6	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You	2 3 4 5 6	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency
2 3 4 5 6 7	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You get data from the market about what yields	2 3 4 5	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency securities five, ten, fifteen years out. But
2 3 4 5 6 7 8	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You	2 3 4 5 6	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency
2 3 4 5 6 7	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You get data from the market about what yields	2 3 4 5 6 7	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency securities five, ten, fifteen years out. But
2 3 4 5 6 7 8	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You get data from the market about what yields will be at a particular point out into the	2 3 4 5 6 7 8	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency securities five, ten, fifteen years out. But you could generate a forward curve based on
2 3 4 5 6 7 8 9	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You get data from the market about what yields will be at a particular point out into the future. And that is data that then is used to	2 3 4 5 6 7 8 9	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency securities five, ten, fifteen years out. But you could generate a forward curve based on economists' predictions. Correct?
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel my heart because I see an employment opportunity here and asking them what the forward curve is or something like that? Q. I meant what I said was: You get data from the market about what yields will be at a particular point out into the future. And that is data that then is used to generate a forward curve. Right? And you could also go to a thousand economists and say, "What do you expect the yields to be a year, two years, three years, five years, ten years, twenty years out?" And you put that as data points and generate a forward curve. Correct? You may call it something else, but you're generating a curve that reflects the economists' predictions? A. Well, could you read that entire statement back? Because the first part of it	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel out. Correct? A. Correct. Q. With economists, I think you would be asking them to do their best prediction on what rates would be on agency securities five, ten, fifteen years out. But you could generate a forward curve based on economists' predictions. Correct? A. That's not a forward curve. A forward curve has to do only with current prices. Q. So you would generate you would generate a curve and call it something else? A. Call it "predictions," yeah. Q. Because, certainly, the forward curve is not about predictions. A. No. It is to some people. But that's not how it's constructed. Q. That's now how it's supposed to be used in your view as an economist and in

	Page 98		Page 100
1	D. Babbel	1	D. Babbel
2	supposed to be used. People can use the	2	A. Well, they cite me, so they must
3	curve. And if they can get some information	3	be right.
4	on or about the future, bless their hearts.	4	Q. There you go.
5	But it's calculated based upon the present.	5	A. They have a specialty in that
6	Q. You're not opining that it's a	6	area. They're cited a lot.
7	good predictive tool. Correct?	7	Q. They're cited a lot in that
8	A. I'm not saying one way or the	8	field, in the area in which they write?
9	other. There's a big debate about that.	9	A. They have interest rate models.
10	MR. LAWRENCE: Why don't we take		That's a two-factor model that then became a
11	a lunch break.	11	famous model for stochastic processes of
12	(Lunch recess taken from	12	interest rates.
13	12:34 p.m. to 1:41 p.m.)	13	Q. And their work is cited within
14		14	your field of expertise?
15		15	A. Yes. I know a lot about that
16		16	field.
17		17	Q. If you'll turn to page 2 of your
18		18	report under "Assignment."
19		19	A. Yes.
20		20	Q. You were asked to review the
21		21	Curry and Hasterok valuation report. Is that
22		22	correct?
23		23	A. That is correct.
24		24	Q. And as I understand it, you have
25		25	not calculated an alternative number that
	Page 99		Page 101
1	D. Babbel	1	D. Babbel
2	AFTERNOON SESSION	2	would put TSA back in the same position it
3	(Time noted: 1:41 p.m.)	3	would have enjoyed had the RFA not been
4	DAVID F. BABBEL, resumed and	4	terminated. Is that right?
5	testified as follows:	5	A. That's right.
6	CONTINUED EXAMINATION	6	Q. Nor have you opined as to the
7	BY MR. LAWRENCE:	7	appropriate methodology to come up with that
8	Q. If you could turn to page 2 of	8	number. Correct?
9	your report.	9	MR. TAMBE: Objection to the form
10	A. Sure.	10	of the question.
11	Q. Before we get there, have you	11	Q. I understand you criticize their
12	ever heard of a piece called "Valuing	12	methodology.
13	Derivatives: Funding Value Adjustments and	13	A. Yes.
14	Fair Value" by Hall and White, John Hall and	14	Q. But you're not proposing an
15 16	Alan White?	15 16	alternative methodology as to how to arrive at the number that would put TSA back in the same
17	A. I don't recall the title of it, but I've read books of theirs and I've read	17	position it would have enjoyed had the RFA not
⊥ /		18	been terminated?
1 2	nanere of theire	T 0	occii terminateu:
18 19	papers of theirs.	19	A I didn't do that calculation I
19	Q. What is the estimation of	19 20	A. I didn't do that calculation. I
19 20	Q. What is the estimation of Mr. Hall and Mr. White within your area of	20	did say that when you're looking at these
19 20 21	Q. What is the estimation of Mr. Hall and Mr. White within your area of expertise, financial market finances?	20 21	did say that when you're looking at these sorts of instruments, you have to use forward
19 20 21 22	Q. What is the estimation of Mr. Hall and Mr. White within your area of expertise, financial market finances? MR. TAMBE: Objection to the form	20 21 22	did say that when you're looking at these sorts of instruments, you have to use forward rates and spot rates of interest.
19 20 21 22 23	Q. What is the estimation of Mr. Hall and Mr. White within your area of expertise, financial market finances? MR. TAMBE: Objection to the form of the question.	20 21 22 23	did say that when you're looking at these sorts of instruments, you have to use forward rates and spot rates of interest. Q. We'll talk about that in more
19 20 21 22	Q. What is the estimation of Mr. Hall and Mr. White within your area of expertise, financial market finances? MR. TAMBE: Objection to the form	20 21 22	did say that when you're looking at these sorts of instruments, you have to use forward rates and spot rates of interest.

1 D. Babbel 1 D. Babbel 2 Q. So that would be a tool that you 2 and relatively steady during the e	Page 104
2 Q. So that would be a tool that you 2 and relatively steady during the e	
	1 160
	early '60s
3 think is appropriate to use in a valuation 3 and particularly the '50s.	
4 exercise such as the one presented here? 4 Q. And you have not opine	
5 A. Forward rates and spot rates, 5 what an appropriate short-term in	
6 yes. 6 should be that in lieu of what N	
7 Q. Okay. If you turn to page 4, one 7 and Mr. Hasterok have suggested	
8 of the opinions that you identify is that you 8 MR. TAMBE: Objection	n to the form
9 think it was inappropriate for Mr. Curry and 9 of the question.	
10 Mr. Hasterok to use historically low interest 10 A. What a short-term rate s	should be?
rates to compute the flow of cash shortfalls. 11 Q. Well, you're criticizing	their
12 Correct? 12 use of historically low short-term	rates, you
13 A. Yes. 13 don't have a prediction about the	future, and
14 Q. Okay. Now, those historically 14 I'm just confirming that I didn't n	niss you
low short-term interest rates are interest 15 didn't provide an opinion that Mr	. Curry or
rates reflective of the period from late 2008 16 Mr. Hasterok should have used X	X or Y or Z
to present. Correct? 17 instead of the short-term interest	rates that
MR. TAMBE: Objection to the form 18 they use.	
19 of the question. 19 A. I thought I said that they	y should
20 A. They were historically low, 20 use forward rates. That's if you	
especially in the last three years. 21 something other than forward rat	
Q. And do you have a prediction of 22 projections, you end up with free	
what interest short-term interest rates are 23 infinite arbitrage opportunities, in	
going to be next year? 24 pricing with the market.	
25 A. No. 25 The spot rate tells you wi	hat anv
	Page 105
-	1490 100
D. Babbel	. , .
2 Q. Five years from now? 2 cash flow is worth at any future po	
3 A. I have a direction, but I don't 3 time, and the forward rate tells yo	
4 have a prediction number. 4 can lock in at any future point in t	
5 Q. Now, are you aware of any other 5 So they were using somet	
6 period of time where U.S. short-term interest 6 even the federal government could	
7 rates have remained low and stable for an 7 of their debt if they were trying to	
8 extended period of time? 8 the way that Curry and Hasterok a	
9 A. Not under conditions like we have 9 it. You can't use historical rates to	price
today with massive deficit spending and an 10 future interest commitments.	
unprecedented monetary policy of printing 11 Q. Well, is it your understar	
money as if it's going out of style. 12 that TSA has the ability to lock in	
Q. Do you agree that in the 1950s 13 rates for a 23-year period during the	
and 1960s, short-term interest rates were low 14 remainder of the term of the contr	
over an extended period of time? 15 A. TSA would have the abil	
16 A. They were, during the early '50s 16 anyone would. I can lock in the in	
during the Eisenhower administration. They 17 rate. You could too. They could to	
didn't get this low, but they were low. Once 18 Now, if you ask whether t	
President Johnson came on, and even partly 19 could with these particular funds t	
20 Kennedy, we started seeing some upward 20 a particular bucket, maybe not. B	
21 movement. 21 market can lock in these cash flow	
Q. So at least in the '50s through 22 Q. But just to be clear, you	
the early '60s, interest rates were low and 23 looked at anything about the inder	
, , , , , , , , , , , , , , , , , , ,	
24 steady, though not as low as they are now? 24 bonds that limits the investments to 25 A. Well, they were relatively low 25 make with respect to the reserve fi	

	Page 106		Page 108
1	D. Babbel	1	D. Babbel
2	you?	2	(Record read.)
3	A. I've read about it in reports,	3	Q. Can I go on to my next question?
4	but I haven't looked at the indenture.	4	A. Yes.
5	Q. So you can't tell us, based on	5	Q. Thank you. And, if the word
6	your independent review of the indenture	6	"indication" bothers you, let me know. And
7	whether or not TSA could have locked in rates		tell me what would be a better word.
8	at any particular level or not?	8	So the forward curve as of March
9	A. I can't tell you what TSA could	9	25, 2009, indicated a how short-term
10	do.	10	interest rates would look from 2009 through
11	Q. And you haven't looked at the	11	February 24, 2014. Correct?
12	statutory authority creating TSA to see what	12	A. No.
13	limitations, if any, exists on their authority	13	Q. Please correct my statement.
14	to invest funds. Correct?	14	MR. TAMBE: Objection to the form
15	A. Well, I've read in the reports	15	of the question.
16	what they say their limitations were.	16	You can answer.
17	Q. Have you done any independent	17	Q. What is incorrect about my
18	investigation to determine what those	18	question?
19	limitations are with respect to the TSA's	19	A. How short-term rates should look.
20	investment authority?	20	I think those were your words.
21	A. No.	21	Q. I want to use the terminology
22	Q. Forward rates are important if	22	that works for you. So you tell me what
23	you can lock in those rates. Correct?	23	terminology works for you. What does the
24	MR. TAMBE: Objection to the form	24	forward rate tell us about other than what
25	of the question.	25	market participants think short-term rates
	Page 107		Page 109
1	D. Babbel	1	D. Babbel
2	A. Forward rates are important	2	will be, it doesn't tell us anything more than
3	whether you can lock them in or not. They	3	that. Right?
4	tell you the price of money at different	4	MR. TAMBE: Objection to form.
5	periods of time, today's price of locking	5	A. It doesn't necessarily tell you
6	those in. Whether you can lock it in or not,	6	that.
7	the value is independent of whether you can do		Q. Okay.
8	it.	8	A. It tells you the price of money
9	Q. Well, if I don't have the	9	today to lock in the future commitment. It
10	capability to invest in the ways that are	10	has embedded in it the consensus of the market
11	necessary to lock in the rates derived from	11	for what the costs of making those commitments
12	the forward curve, what good does it do me?	12	are.
13	A. It tells you what the costs are.	13	Q. So if we look at the forward
14	And it tells you what the market value is.	14	curve as of March 25, 2009, it will it
15	Q. It doesn't tell you what the	15	indicated what the price would be to lock in
16	value is to me in terms of what I can transact	16	the interest rate as of February 24, 2014.
17	in the market. Correct?	17	Correct?
18	A. It doesn't tell you that.	18	A. What the price would be to lock
19	Q. Now, you would agree that the	19	in the interest rate as of February 24, yes,
20	and if the word "indication" is wrong, let me	20	it would tell you.
21	know.	21	Q. And it would tell you what the
22	A. Can I go back to the last	22	yield would be as of February 24, 2014, that
23	question. I don't know that I could you	23	you were locking in. Correct?
24	read that again for me. I think I was	24	A. It would.
25	incomplete in my answer.	25	Q. So is it fair to say that the

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yields than the 2009 curve. Correct? 25 to me.	25	yields than the 2009 curve. Correct?	25	to me.

	Page 114		Page 116
1	D. Babbel	1	D. Babbel
2	Q. But you didn't run a curve?	2	use Mr. Curry and Hasterok's assumption, you
3	A. No, I didn't. I just looked at	3	would get a value that's one-seventh as much
4	the short one.	4	as something, one-fifth as much, something
5	Q. Do you agree that short-term	5	like that. That's what a floating rate
6	rates tend to be lower than mid-term rates?	6	instrument where you're just getting the
7	A. I've seen every kind of shape of	7	coupons. You don't get the principal of what
8	a yield curve imaginable, and sometimes they	8	it's worth in the marketplace.
9	are and sometimes they aren't.	9	Anyway, it's a small fraction.
10	Q. Well, you're a professor of	10	I've never seen anything trade like that.
11	finance. Would you agree, more often than	11	That's not how it works. And it's
12	not, that short-term rates are lower than	12	inconsistent with valuation principals. The
13	mid-term rates?	13	forward and spot rate curves tell you what the
14	A. I would.	14	value of money is: any amount of money from
15		15	one dollar to a million dollars or more on any
16	Q. In paragraph 2, you say the forward rates and the term structure of	16	particular date.
17		17	1
	interest rates as of March 25, 2009 I'm		Q. So are you saying if I have a
18	just trying to reduce that.	18	dollar that I want to lock in a rate of return
19	You're saying that the forward	19	reflected in the forward curve, I can do that?
20	curve, as of March 25, 2009, would suggest a	20	I can go someplace, and somebody's going to
21	rate substantially higher than that assumed by	21	lock me in for a dollar?
22	Mr. Curry and Hasterok. Correct?	22	A. You may find someone. Usually,
23	A. Yes.	23	it takes a lot more than that.
24	Q. I don't understand your sentence,	24	Q. The ability to take advantage of
25	"To do otherwise, would imply values that have	25	the information in the forward curve depends
	Page 115		Dama 117
			Page 117
1	D. Babbel	1	D. Babbel
1 2	-	2	-
	D. Babbel		D. Babbel
2	D. Babbel nothing to do with the values seen in the	2	D. Babbel on the ability to transact freely in the
2 3	D. Babbel nothing to do with the values seen in the marketplace."	2	D. Babbel on the ability to transact freely in the market. Correct?
2 3 4	D. Babbel nothing to do with the values seen in the marketplace." Could you explain that? A. Sure. When you're valuing a	2 3 4	D. Babbel on the ability to transact freely in the market. Correct? MR. TAMBE: Objection to the form
2 3 4 5	D. Babbel nothing to do with the values seen in the marketplace." Could you explain that? A. Sure. When you're valuing a floating rate leg of a swap, the market	2 3 4 5	D. Babbel on the ability to transact freely in the market. Correct? MR. TAMBE: Objection to the form of the question. A. No. You can take advantage of it
2 3 4 5 6	D. Babbel nothing to do with the values seen in the marketplace." Could you explain that? A. Sure. When you're valuing a floating rate leg of a swap, the market practice is consistent with finance theory.	2 3 4 5 6	D. Babbel on the ability to transact freely in the market. Correct? MR. TAMBE: Objection to the form of the question. A. No. You can take advantage of it because the instruments that you buy all
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1	D. Babbel	1	D. Babbel
2	of the question.	2	rate is speculative."
3	THE WITNESS: Can you just read	3	Do you see that?
4	it back?	4	A. Yes.
5	(Record read.)	5	Q. Would you agree that any guess
6	A. To take advantage of or reflect?	6	about what future interest rates will be is
7	Could you rephrase that question?	7	speculative?
8	Q. I understand the forward curve	8	A. Any guess is a guess. Some
9	demonstrates what you believe the	9	guesses are better than others. This is a
10	market-available yield would be. Correct?	10	horrible guess.
11	MR. TAMBE: Objection to the form	11	Q. But any guess is speculative?
12	of the question.	12	A. How are you defining
13	Q. Is that correct or not?	13	"speculative" for this purpose?
14	A. The yield curve reflects the	14	Q. How are you defining
15	available yield?	15	"speculative" as you use the term here?
16	Q. What's available in the market.	16	A. That we don't know the future.
17	A. Yes.	17	Q. So since we don't know the
18	Q. In order for an individual or an	18	future, any assumption about interest rates in
19	entity to take advantage of that, in order to	19	the future would indeed be speculative.
20	achieve that yield, I have to be able to	20	Correct?
21	transact in the market. Is that correct?	21	MR. TAMBE: Objection to the
22	A. You have to be able to qualify to	22	form.
23	transact. So I did five years' worth of this,	23	You can answer.
24	and it cost me \$14,000 for a lot of money.	24	A. I say, "Speculative,
25	And it took very little money on my part to	25	unsupported." It's speculative in that sense.
	Page 119		Page 121
1	D. Babbel	1	D. Babbel
2	lock in all these rates.	2	They can't point to any financial theory that
3	And I think you could do it. I	3	would justify that prediction. They can't
4	imagine TSA could do it for that. That would	4	point to any market praise that would justify
5	be just part of a rounding error or something.	5	such a prediction.
6	Q. That's an assumption on your	6	In fact, we have five experts all
7	part?	7	saying forward rates are important. We have
8	A. Yes.	8	the entire market saying all forward rates are
9	MR. TAMBE: Well, your question	9	important, including Curry and Hasterok.
10	is a hypothetical, so	10	They never used this method
11	MR. LAWRENCE: His statement	11	before. They invented it out of whole cloth,
12	about the TSA was an assumption on his	12	and it's laughable. I haven't seen anything
13	part.	13	like this in my 30 years. They would have
14	Q. You continued in the next	14	flunked my 101 class in finance.
15	paragraph, 3, you provide further criticism of	15	Q. I assume you think it's
16	the .65 interest rate.	16	laughable, too, that the TSA has lost tens of
17	Do you see that?	17	millions of dollars since Lehman defaulted on
18	MR. TAMBE: Page 4?	18	its bankruptcy?
19	MR. LAWRENCE: Yes, we're still	19	MR. TAMBE: I don't think
20	on page 4.	20	that's
21	Q. Do you see that paragraph 3?	21	Objection to
22	A. In the summary of opinions?	22	A. That's a nonsecretor
23	Q. Yes.	23	Q. Is it laughable, sir?
24	A. Okay.	24	A. I don't think it's laughable.
25	Q. You say, "Using the .65 interest	25	Q. These are taxpayer moneys that

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1	D. Babbel	1	D. Babbel
2	are being lost. Is that laughable, sir?	2	to assume that they would not lose
3	A. I think it's sad that TSA	3	principal? Is that the assumption
4	invested them in money markets. They had	4	you're asking him to make?
5	other options and you know it.	5	MR. LAWRENCE: That the risk
6	Q. What options would you suggest to	6	profile and that the chance that
7	retain the same level of risk that was in the	7	principal would be lost within the RFA
8	RFA, given the constraints the TSA had in the	8	is mirrored; for example, in an
9	bond indenture and in their authorizing	9	alternative instrument.
10	authority?	10	So for example, an
11	MR. TAMBE: Objection to the form	11 12	uncollateralized GIC would raise the
12	of the question.		possibility of loss of principal.
13	A. They could have mimicked	13	Correct?
14	something like the floating leg of a swap, by	14	A. An uncollateralized
15	investing in appropriate money market	15	MR. TAMBE: Continuing objection
16	instruments and not throwing away so much	16	to the form of the question.
17	money.	17	Q. Is that correct?
18	Q. What are appropriate money market	18	A. When you said, to mimic the same
19	instruments that they could have invested in?	19	risk, what you did was buy you entered into
20	A. Well, I don't know what TSA is	20	a swap agreement, essentially, with a
21	limited to. I know that, at least under the	21	counterparty that was going to go bankrupt in
22	RFA and the indenture, they had some limits.	22	a few years.
23	I don't know to what extent they applied, but	23	Are there other counterparties
24	they gave a list of things that they could	24	that you may enter into that would have a
25	invest in.	25	similar chance of going into bankruptcy? You
	Page 123		Page 125
1	D. Babbel	1	D. Babbel
2	And money markets, you're paying	2	want to replace exactly the same risk. Right?
3	through the nose to get daily liquidity. Why	3	Q. I would like to see you to
4	does TSA need daily liquidity? Why couldn't	4	tell me whether there are other instruments
5	they get six-month liquidity?	5	that would have the same risk involved. Here,
6	Q. So my question was: Can you	6	the risk was the failure of Lehman to pay
7	identify any other instruments that you	7	interest because the dollars were not invested
8	believe that should have been invested in	8	in Lehman. Lehman wasn't holding the dollars
9	given the indenture requirements and authority	9	And so, fortunately, the \$45 million principal
10	requirements that would have provided the same	10	remains intact.
11	risk profile as the RFA?	11	So there's a concern, a risk,
12	MR. TAMBE: Objection to the form	12	that the TSA has to make sure that that
13	of the question.	13	principal remains intact?
14	You can answer.	14	A. Yes.
15	A. Well, when you say, "the same	15	MR. TAMBE: Objection to the form
16	risk profile," how are you defining that?	16	of the question.
17	Q. I'm defining the risk that the	17	Q. So, we're looking for a financial
18	TSA would face of nonperformance and including	18	instrument that was available on March 2009,
19	loss of principal.	19	that in your estimation would best approximate
20	MR. TAMBE: Objection to the form	20	the risk that TSA was trying to address in the
21	of the question.	21	RFA.
22	Could you just read back that	22	A. TSA entered into a swap
23	last question?	23	agreement. It had a fixed leg and a floating
24	(Record read.)	24	leg. Because the fixed leg is not available,
25	MR. TAMBE: So you're asking him	25	they could take the same side that Lehman

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1	D. Babbel	1	D. Babbel
2	took, if they wanted, and invest in floating	2	since 2009?
3	rate instruments.	3	A. Yes.
4	The best floating rate	4	Q. Keep that in mind as we go
5	instruments will have interest rates that	5	forward in this deposition.
6	ensue over time but will provide the return of	6	A. Yes.
7	principal at the end of the intervals, the	7	Q. Have you done any calculation of
8	same as before.	8	what TSA's losses would be if they had, for
9	And it had the same present	9	example, purchased government agency
10	value, at least at the outset, to Lehman	10	securities on a six-month basis every six
11	Brothers, as it had to TSA, approximately the	11	months between March 2009 and today?
12	same present value. And undertaking a series	12	A. I haven't done the calculation.
13	of investments in the future with a floating	13	Q. You could do that. Right?
14	rate would similarly have a present value that	14	We know what they could have
15	reflects the full principal that you have.	15	received, what yield they could have received,
16	As you represented to me earlier,	16	if they purchased in March 25, 2009. Correct?
17	and some of the witnesses represented, the	17	Let's move to the actual date.
18	fixed leg is precluded right now because of	18	So June 2009, they would have purchased.
19	unpopularity of the tobacco settlement swaps.	19	Correct? And we can look at the market data
20	But you could get a floating leg that is worth	20	and see what yield they could obtain.
21	the same amount of money and invest your money	21	Correct?
22	similarly to what is actually assumed in the	22	A. Yes.
23	swap pricing.	23	Q. And what costs they would incur
24	Q. Let's let's just assume	24	in making that transaction. Correct?
25	well, let's step back because the testimony	25	A. Yes.
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1	D. Babbel	1	D. Babbel
2	has been that, not just tobacco RFAs, but that	2	Q. And then you can go six months
3	Reserve Funds Agreements, in general, are not	3	out from there and see what the yields were in
4	available in the market.	4	December of 2009 and do that same exercise
5	Do you understand that?	5	every six months to date. Correct?
6	A. Well, that's what you said. I	6	A. You could.
7	don't know	7	Q. And you could compare that actual
8	Q. That's what Lehman's expert said.	8	interest that could have been earned with the
9	A. That's fine.	9	guaranteed interest that Lehman agreed to
10	MR. TAMBE: You're asking him to	10	provide. Correct?
11	assume that fact. Is that what you're	11	A. Right.
12	asking?	12	Q. And that is one way that you
13	MR. LAWRENCE: That's what he	13	could determine the loss that TSA suffered, at
14 15	testified to yesterday. So	14 15	least between 2009 and 2014. Correct?
16	MR. TAMBE: What are you asking this witness for? Not what someone else	16	A. Assuming that they bought what
17	testified to you yesterday. What are	17	instruments, that they bought money the money market that they actually purchased?
18	you asking him to assume for purposes of	18	Q. I'm just saying, assuming that
19	the next question?	19	they bought one of the eligible securities
20	Q. Assume that Lehman's expert is	20	under the RFA.
21	correct in that point, that there was no	21	A. Yes, you could calculate that.
22	active market for Reserve Fund Agreements.	22	Q. And that would be a reflection of
23	A. Okay.	23	the actual loss, in your view, that the TSA
24	Q. There hasn't been, to his	24	has suffered between 2009 and 2014. Correct?
25	knowledge, a Reserve Fund Agreement transacted	25	MR. TAMBE: Objection to the form
23			

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1	D. Babbel	1	D. Babbel
2	of the question.	2	what you have stated, and others there was
3	You can answer.	3	not an active market for those sorts of
4	A. No. The loss depends upon the	4	contracts. But there was, certainly, a very
5	value of the instrument. And the value of the	5	active market for both legs of that contract.
6	instrument would reflect all of the future	6	Q. Well, that's not what this did
7	possibilities as well.	7	you read this agreement?
8	Q. Have you read the termination	8	A. I did.
9	amount provision of the RFA?	9	Q. Okay. Does the agreement say
10	A. Yes.	10	you're supposed to get quotes for some
11	Q. Does it say anywhere in there	11	different kind of contract, than the RFA?
12	that the termination amount shall be	12	A. Well, you can't get quotes for
13		13	the RFA. You have to value it in pieces.
14	determined by the theoretical value of the instrument?	14	
15		15	Q. That's not what it says here,
	A. It talks about using market	16	does it? Does it say, "If you can't get
16	quotes, and forward curves are dependent on	17	quotes, then you value it in pieces"?
17	market quotes. So it embraces the notion of		MR. TAMBE: Objection to the form
18	forward curves because that's how these	18 19	of the question.
19	floating rate instruments are valued.		And just if you can, just let him
20	And when I talk about the value	20	finish answering.
21	of the procedure, we're not just talking about	21	A. If you keep reading, if you go to
22	the first four years of cost flows. This is	22	Section 7.6, it says that when you're doing
23	twenty-three years. And value is going to	23	such an operation, you have to do it from the
24	reflect the full length of time that you're	24	perspective of the dealer, basically.
25	going to be able to do this.	25	Because dealers are the ones that
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1	D. Babbel	1	D. Babbel
1 2	D. Babbel Q. Are you finished?	2	-
			D. Babbel
2	Q. Are you finished?	2	D. Babbel offer this. In fact, they said "Lehman's
2 3	Q. Are you finished?A. Well, I can stop now.	2 3	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market
2 3 4	Q. Are you finished?A. Well, I can stop now.Q. I agree with you, that the first	2 3 4	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces.
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2 3 4 5 6	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the	2 3 4 5 6	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all
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2 3 4 5 6 7 8 9 10 11	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that	2 3 4 5 6 7 8 9 10 11	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them,
2 3 4 5 6 7 8 9 10 11 12 13	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that provision, that it does contemplate that if	2 3 4 5 6 7 8 9 10 11 12	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them, and nothing that I've ever read says you have
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2 3 4 5 6 7 8 9 10 11 12 13 14 15	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that provision, that it does contemplate that if you can get market quotes, that will tell us	2 3 4 5 6 7 8 9 10 11 12 13 14	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them, and nothing that I've ever read says you have to use Hasterok's assumption. And had Lehman assumed, or anyone
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that provision, that it does contemplate that if you can get market quotes, that will tell us what the value is. Is that correct? A. That's correct. Q. But market quotes were not able to be obtained. Do you have any different understanding? MR. TAMBE: Objection to the form	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them, and nothing that I've ever read says you have to use Hasterok's assumption. And had Lehman assumed, or anyone assumed, what Hasterok does, they never would have entered into the deal. They would have said, "Okay. You're giving us \$45 million, but it's only worth \$15 million or \$10 million. Because you're limiting us to only
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2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that provision, that it does contemplate that if you can get market quotes, that will tell us what the value is. Is that correct? A. That's correct. Q. But market quotes were not able to be obtained. Do you have any different understanding? MR. TAMBE: Objection to the form of the question. A. Market rates for what?	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them, and nothing that I've ever read says you have to use Hasterok's assumption. And had Lehman assumed, or anyone assumed, what Hasterok does, they never would have entered into the deal. They would have said, "Okay. You're giving us \$45 million, but it's only worth \$15 million or \$10 million. Because you're limiting us to only earn 65 basis points for the next 23 years." Q. So is it correct then that your
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	Q. Are you finished? A. Well, I can stop now. Q. I agree with you, that the first step in the process to obtain market quotes would typically involve a dealer using the forward curve to come up with a market quote. We can agree on that. A. Yes. Q. That would be standard in the industry, so to speak? A. It would be. Q. And I agree, just looking at that provision, that it does contemplate that if you can get market quotes, that will tell us what the value is. Is that correct? A. That's correct. Q. But market quotes were not able to be obtained. Do you have any different understanding? MR. TAMBE: Objection to the form of the question.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	D. Babbel offer this. In fact, they said "Lehman's perspective." And that's the way the market values these things, and you do it in pieces. You do the best you can. These instruments are valued all the time even though they're not traded. And they have to be valued, because they're reported mark to market on a daily basis. The CME requires that they use forward rates to value them. The London Clearing House says you have to use forward rates to value them, and nothing that I've ever read says you have to use Hasterok's assumption. And had Lehman assumed, or anyone assumed, what Hasterok does, they never would have entered into the deal. They would have said, "Okay. You're giving us \$45 million, but it's only worth \$15 million or \$10 million. Because you're limiting us to only earn 65 basis points for the next 23 years."

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1	D. Babbel	1	D. Babbel
2	of the market?	2	was acting in good faith?
3	MR. TAMBE: Objection to the form	3	A. No.
4	of the question.	4	Q. In fact, it doesn't appear that
5	A. It you use the way I read	5	you have reviewed any of the depositions of
6	that and I'm not giving a legal opinion,	6	the TSA people who were making those
7	just the way I read the contract is that	7	decisions. Correct?
8	you're supposed to use the typical conventions	8	A. That's correct.
9	that dealers would use.	9	Q. Now, the actual RFA provides that
10	Q. So then is your opinion based on	10	if quotations are not available, that the
11	that assumption; that is, your opinions about	11	burden party who is TSA. You understand
12	the propriety, the use of the forward curve,	12	that, that TSA is the burden party in this
13	et cetera, based on the assumption that you	13	contract?
14	value this from the dealer side of the market	14	A. That's what I understand.
15	using dealer-standard valuation methodologies?	15	Q. (Reading.) "The termination
16	A. That's a good question. I would	16	amount shall be the amount as reasonably
17	value it the same whether I were the buyer or	17	determined in good faith by the TSA to be the
18	the dealer, because those are the only values	18	TSA's total losses and costs."
19	that are traded. So it really doesn't matter.	19	Do you remember that terminology?
20	Q. But if TSA can't transact, why do	20	A. Sure.
21	traded values matter to TSA?	21	
22	MR. TAMBE: Objection to the form	22	Q. And how does total losses and costs does that tell you you have to use
23	of the question.	23	future curves?
24	You want him to speculate as to	24	A. Could you give me the document,
25	what matters to the TSA?	25	please?
23			1
1	Page 135	-	Page 137
1	D. Babbel	1	D. Babbel
2	A. The contract has ended. The	2	Q. Sure.
3	question is in my view, the question is:	3	A. (Document review.) Section 5.5
4	Did TSA do the best that they could?	4	talks about termination amounts. And it says
5	Investing in money markets is, like, the worst	5	the amount owed to Lehman could be
6	thing you could do from my perspective. I	6	substantial.
7	don't know why they did that.	7	It also I remember reading
8	Were they trying to go for the	8	something about material errors, that if the
9	lowest possible yield or have daily liquidity	9	entity doing the valuation which in this
10	so they could gamble on the future and	10	case would be TSA made a I forget the
11	immediately transact when markets jump so they	11	exact wording, but it had to do with apparent
12	could make a big profit?	12	or material
13	I don't know what their	13	Q. I think if you look at the end of
14	motivation was. I think they have pretty	14	the termination amount definition we were
15	good well, I shouldn't speculate on that.	15	looking at the beginning of the contract,
16	Q. Do you have any reason to believe	16	there's a manifest error. Is that what you're
		1 -	
17	that TSA was not acting in good faith?	17	talking about?
17 18	that TSA was not acting in good faith? MR. TAMBE: Objection to the form	18	talking about? A. Manifest error.
17 18 19	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question.	18 19	talking about? A. Manifest error. Q. It's in the termination amount
17 18 19 20	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question. A. I think I could have done a	18 19 20	talking about? A. Manifest error. Q. It's in the termination amount definition that we were looking at originally.
17 18 19 20 21	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question. A. I think I could have done a better job of mitigating losses than they did	18 19 20 21	talking about? A. Manifest error. Q. It's in the termination amount definition that we were looking at originally. A. Okay.
17 18 19 20 21 22	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question. A. I think I could have done a better job of mitigating losses than they did unless they were trying to make a play on the	18 19 20 21 22	talking about? A. Manifest error. Q. It's in the termination amount definition that we were looking at originally. A. Okay. Q. At the end of that, on the next
17 18 19 20 21 22 23	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question. A. I think I could have done a better job of mitigating losses than they did unless they were trying to make a play on the future.	18 19 20 21 22 23	talking about? A. Manifest error. Q. It's in the termination amount definition that we were looking at originally. A. Okay. Q. At the end of that, on the next page.
17 18 19 20 21 22	that TSA was not acting in good faith? MR. TAMBE: Objection to the form of the question. A. I think I could have done a better job of mitigating losses than they did unless they were trying to make a play on the	18 19 20 21 22	talking about? A. Manifest error. Q. It's in the termination amount definition that we were looking at originally. A. Okay. Q. At the end of that, on the next

	Page 138		Page 140
1	-	1	_
1	D. Babbel	1	D. Babbel
2	Curry and Hasterok made it to come up with a	2	Q. I'm not suggesting you know. I'm
3	new method valuation, which I've never seen,	3	just asking how do you determine what their
4	they've never done. So there's clearly a	4	total losses will be. As you said, there may
5	manifest error from an economist's point of	5	not be losses. You have to go through the
6 7	view.	6 7	valuation first. How do you valuate what the
	Q. Oh, does the termination amount		total losses will be?
8 9	definition incorporate from an economist's	8 9	A. You look at what they could have lost in value. That's how I would do it. But
10	point of view into its definition?	10	
11	MR. TAMBE: Objection to the form of the question.	11	I'm not the damages expert. I don't know the definition of damages.
12	A. I'm an economist. It was	12	They're talking here about a
13	manifest to me. What else can I say?	13	termination amount. I know something about
14	Q. The definition doesn't	14	valuing swaps, fixed pieces, and floating
15	incorporate the standard of an economist	15	pieces.
16	finance professor at Wharton does it?	16	My testimony is really restricted
17	A. It does talk about from Lehman's	17	to methodology and how swaps are take
18	point of view, from the perspective of Lehman		advantage of or valued by forward rates of
19	in Section 7.6.	19	interest. So I wasn't asked to really do
20	I would say that all the experts	20	this, what you're asking me now.
21	would agree that this is something that	21	Q. Okay. Fair enough. I do need
22	they've never seen before and never done	22	that back though.
23	before. And to make a claim for millions and	23	A. Sure. (Handing.)
24	millions of dollars from people who are not	24	Q. Have you ever been asked to give
25	trained in economic things and who come up	25	an opinion about a party's total losses?
	Page 139		Page 141
1	D. Babbel	1	D. Babbel
2	with a model that's ludicrous to valuate	2	MR. TAMBE: Objection to the form
3	something, to me, that's a manifest error.	3	of the question.
4	They should use standard	4	A. I don't know. I don't think so.
5	valuation procedures that are consistent with	5	Q. Okay. When you use the term
6	the way things are actually valued.	6	"historically low short-term interest rates,"
7	Q. What's the standard procedure	7	what interest rates are you referring to?
8	when you have a situation, as you've said,	8	A. Interest rates during my time,
9	you've never seen before?	9	since I started looking at it.
10	A. Uh-huh. You look at the pieces	10	Q. What instrument? When you say
11	of the transaction and see if you can value	11	"interest rates," it could be a money market
12	them the best you can. Because the contract	12	funds, a T-Bill, a
13	is no longer available, so there's potential	13	A. I'm sorry. Treasuries.
14	damages that go to one party or the other.	14	Q. Treasuries?
15	And you do the valuation and find out who they	15	A. Yes.
16	go to.	16	Q. You say the 65 the .65 percent
17	Q. Is there anything unfair or	17	interest rate ignores historical record.
18	inappropriate in the definition of termination	18	Do you see that?
19	amount to try to figure out what TSA's actual	19	A. Yes.
20	losses will be?	20	Q. It certainly reflects the
21 22	MR. TAMBE: Objection to the form	21 22	historical record from March 2009 to February
23	of the question. A. What their actual losses will be?	23	2014. Correct? MR. TAMBE: Objection to the
23	I don't know that there will be any losses at	24	form.
25	all under this contract.	25	A. I'd have to look at the data.
20	an under this contract.	۷ ی	A. TU HAVE TO TOOK AT THE UATA.

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	Page 142		Page 144
1	D. Babbel	1	D. Babbel
2	I'd say "no." What it did was reflect one	2	A. Forward curve has a lot to do
3	interest rate that was available out of four	3	with financial theory. Linear regression is
4	years. That interest rate happened to be	4	one of many methods used to calculate forward
5	reasonably close to one available four years	5	curves and spot curves.
6	earlier, but the rate fluctuated quite a bit.	6	Q. So I understand, linear
7	So I looked at that curve. It	7	regression is a tool used in financial theory
8	went way up and then way down. So I can't say	8	by some people to calculate the spot curve or
9	that it's reflective of that four-year period.	9	forward curve. Correct?
10	Q. Nor can you say it's not	10	A. The earliest models back in the
11	reflective. Right?	11	'70s used that.
12	A. I can say that I saw the interest	12	Q. And the forward curve is simply a
13	rate jump way up and way down during that	13	more precise, from a modeling point of view,
14	period and then jump up again. It depends on	14	line drawing. Is that fair?
15	how you define "reflective."	15	MR. TAMBE: Objection as to form
16	Q. So which interest rate jumped up	16	of the question.
17	between March 2009 and 2014?	17	A. No, it's not fair.
18	A. I saw a LIBOR plot. I went back	18	Q. It is just drawing a line based
19	to 2001 or 2002 and looked at a plot. And I	19	on a computer model. Correct?
20	already discussed that plot with you after one	20	A. If you define a curve as a line,
21	month, three month, six month LIBOR.	21	I guess it's a kind of a line, a non-straight
22	Q. I just want to make sure I	22	line.
23	understood your testimony. You were saying	23	Q. In paragraph 4, you talk about
24	that going back to 2001, you see significant	24	the upward sloping of the term structure of
25	fluctuations up and down. Correct?	25	interest rates. It's more historically
	Page 143		Page 145
1	D. Babbel	1	D. Babbel
2	A. Yes.	2	prevalent at higher levels?
3	Q. But my question was: Since 2009,	3	A. Yes.
4	have you seen significant fluctuations up and	4	Q. Does the I'm just going to use
5	down, if you know?	5	the word "forward curve," because it's easier
6	A. Since 2009?	6	for me to say. Is the forward curve always
7	Q. Yes.	7	upward sloping?
8	A. I haven't looked at that.	8	A. No.
9	Q. Is linear regression a common	9	Q. So you're just talking about the
10	commonly used in finance?	10	upward slope that was present on March 25,
11	A. A linear regression is commonly	11	2009?
12	used in finance.	12	MR. TAMBE: Objection to the form
13	Q. You don't have any problem using	13	of the question.
14	linear sorry using linear regression is	14	A. Well, the upward slope is
15	not unsupported by financial theory. Correct?	15	persistent for a while here. It reflects
16	MR. TAMBE: Objection to the form	16	market expectations as well as all other
17	of the question.	17	market information.
18	A. It doesn't make any sense to me.	18	Q. Low interest rates have persisted
19	Q. Other people use it in financial	19	for a while as well. Right?
20	theory?	20	A. They have.
21	A. Financial theory does not speak	21	MR. LAWRENCE: Why don't we take
22	to statistical methodology.	22	a break.
23	Q. So the forward curve is not	23	MR. TAMBE: Sure.
24	does not have anything to do with financial	24	(Recess taken from 2:40 p.m. to
25	theory?	25	2:58 p.m.)

	Page 146		Page 148
1	D. Babbel	1	D. Babbel
2	BY MR. LAWRENCE:	2	Q. So you recognize there's a
3	Q. Given what you know about	3	difference between your valuation methodology
4	financial theory and the functioning of the	4	and what a dealer might be willing to
5	markets, wouldn't you expect some dealer to be		transact?
6	able to quote a replacement RFA contract in	6	MR. TAMBE: Objection to the form
7	March 2009, just on a theoretical basis?	7	of the question.
8	MR. TAMBE: Objection to the form	8	A. Could you read back the question?
9	of the question.	9	(Record read.)
10	A. I would expect more than	10	A. A dealer will have their own
11	expect I would have an almost certainty that	11	
12	*	12	valuation methodology, not necessarily my
I	they would be able to quote swaps. Whether	13	valuation methodology, but something that's
13	associated with an RFA or not, you'd have to	14	consistent with it. And he may not be in the
14	ask someone that's closer to the markets, the		market to transact for that particular
15	day-to-day market, than I am.	15	instrument, but they can still value it. We
16	Q. Well, your financial theory is	16	did that all the time at Goldman Sachs.
17	that there's a standard market methodology for	17	Q. Well, you've got a lot of market
18	valuing contracts such as the RFA. Correct?	18	players who are capable of applying similar
19	A. There is a standard methodology,	19	financial models to yours to value this
20	yes.	20	contract, the transactions under this
21	Q. And this is not a secret. It's	21	contract. Correct?
22	known to all of the market participants.	22	A. Yes.
23	Correct?	23	Q. Okay. But none of them were
24	A. Apparently not, if TSA is saying	24	willing to actually transact. Correct?
25	that they use some other way of valuing it.	25	MR. TAMBE: Objection to the form
	Page 147		Page 149
1	D. Babbel	1	D. Babbel
2	Q. Well, they're not a dealer, but	2	of the question.
3	I'm asking from the dealer's point of view.	3	A. I don't know if some of them
4	This is a well-understood theory of using	4	were. What I know is TSA didn't find anyone
5	forward curves to value contracts such as	5	that was. I don't know how much canvassing
6	this. Correct?	6	they did. I know that Curry and Hasterok
7	A. Yes.	7	purported that there wasn't, even though their
8	Q. And it should have been a	8	own firm was offering quotes, according to
9	relatively straightforward exercise for a	9	Mr. Hasterok, on such instruments.
10	dealer to valuate this contract in 2009.	10	Q. In 2009?
11	Correct?	11	A. I think he said that the
12	A. They had to do it daily.	12	Lehman sorry, not the Lehman desk but
13	Q. And thus it should have been	13	Morgan Stanley desk. He mentioned it. Page
14	relatively straightforward for a dealer to	14	109, or something, he said something like
15	provide a quote to the TSA to provide some	15	that. I couldn't swear to that particular
16	type of replacement contract?	16	
17		17	number. I have a lot of numbers in my head.
18	MR. TAMBE: Objection to the form	18	And not only them. Wachovia
19	of the question.	19	apparently made some sort of quote that they
	A. I think that's a non sequitur.	20	were apparently willing to transact at.
20	Q. Why?		Q. I'm sorry. Is it your
21	A. I could come up with a value, but	21	understanding that the Wachovia quote was a
22	that doesn't mean I'm going to quote. I may	22	quote that they were willing to transact at?
23	not be interested in that particular	23	A. I think so, but I don't know for
	instrument. That doesn't mean I can't figure out what it's worth.	23 24 25	Sure. I'd have to go back and review the testimony.

Page 150 Page 152 1 D. Babbel 1 D. Babbel 2 Q. Was it fact that you think 2 O. The forward curve, as we've 3 Wachovia provided a quote that they were 3 talked about, is based on data from market willing to transact something that supports, transactions. Why isn't the inability or the 4 4 5 in your view, your opinions in this case? 5 lack of a transaction a relevant piece of data 6 A. No. 6 that should be considered? 7 Q. Can you explain why -- if there 7 A. Because there were thousands of 8 8 are financial models that everyone uses in the transactions on the same LIBOR curve during 9 market that are substantially similar, that 9 any given day. 10 10 can easily value this contract -- nobody was Q. But there hasn't been a willing to transact an alternative contract? 11 11 transaction in an RFA since 2009. Why isn't MR. TAMBE: Objection to the form 12 12 that data relevant? 13 of the question. 13 A. You can get the same amount of 14 A. I don't know that nobody was 14 dollars on some other kind of instrument. The 15 willing to. I just know that Mr. Shapiro 15 fixed rate back in 2009 was about 5-something apparently asked some people, but he didn't percent. They were being offered 4.484. 16 16 17 keep track of who he asked and what they said. 17 It's just that TSA, because of 18 And Mr. Hasterok or Curry asked a 18 their indenture, wasn't able to take advantage 19 couple of people. I'm assuming that the 19 of that. So that means they would have to do 20 market was thin or dried up entirely. But 20 the floating rate leg, which is worth the same that doesn't mean the cash flows associated amount of money, if you're trying to figure 21 21 22 with the original contract couldn't be 22 out how much money was lost and what it's 23 mimicked and priced. 23 worth. 24 Q. Doesn't the fact that the market 24 Q. I'm just trying to understand why 25 is unwilling to transact, provide some 25 it is that you take into account certain Page 151 Page 153 1 1 D. Babbel D. Babbel 2 2 indication of the value of the contract? market data but then refuse to take into MR. TAMBE: Objection to the form 3 3 account other market data? 4 4 MR. TAMBE: Objection to the form of the question. 5 A. Assuming the market was unwilling 5 of the question. 6 6 to transact, I presume there would be a price, A. I'm looking at the present value 7 7 some price that would induce someone to go of a cash flow strain. We already talked 8 about the fixed rate leg and we talked about 8 into it. But to me, it doesn't indicate the 9 the floating rate leg. The present values can 9 value of the floating leg rate of a swap or a 10 fixed leg rate of a swap. 10 be determined, and you can get pretty accurate 11 11 Q. I thought -- sorry. valuations on those. A. That's enough. 12 Whether TSA had restricted itself 12 Q. Well, it's correct that you would 13 13 through an indenture or something to take assume that somebody would be willing to 14 advantage of certain legs of the transaction, 14 15 transact at some price, because that's 15 they nonetheless had all the money. And the 16 consistent with your financial theory, 16 transactions had the same -- the legs have the 17 correct, about how markets operate? 17 same value whether TSA can take advantage of A. Yeah. And you'd think at some 18 one leg or the other. 18 19 19 price you could attract someone. I don't know Q. Did you take into account the 20 what that price would be. But it's not 20 mandatory cleanup call provision of the RFA? 21 particularly relevant. 21 A. Yes, I read it. It means there's 22 a potential cancellation TSA could do. I 22 Because what you're looking for is what the value of the two legs happen to be 23 looked at whether there was optionality 23 on the day of the termination, or rejection, I involved. There isn't in the financial sense, 24 24 25 should say. 25 but there is in a legal sense, I suppose.

	Page 154		Page 156
1	D. Babbel	1	D. Babbel
2	The financial sense optionality	2	A. I analogize the facility with
3	means you can willfully do something just	3	which you can calculate forward rates as that
4	because you find an advantage to doing so.	4	equation, 5 plus "X" equals 8.
5	And instead, this was precipitated by	5	Q. Well, just so we understand: 5
6	, 1 1		plus 3 equals 8 today, tomorrow, the next day.
7	Q. Are you aware of any swap	6 7	It always equals 8. Correct?
8	transactions where an event I don't know if	8	A. Yes.
9	that's a word you feel comfortable but an	9	Q. But as you've indicated, the
10	event can trigger a par call?	10	forward curve on March 25 is going to give a
11	A. Sure, cancellable-type swaps.	11	different algebraic equation than a forward
12	And in this particular case, it must have been	12	curve is on December 24 or 25. Well, the 25th
13	embedded in the original agreement that	13	is a holiday. You probably don't have too
14	pricing would have reflected the fact that TSA		many transactions on it. Correct?
15	had this cancellation provision that might be	15	A. Correct.
16	invoked.	16	Q. So the notion that X is not
17	Q. So a callable swap might have	17	speculative and is reliable and ambiguous,
18	been an appropriate alternative investment	18	only pertains to the one day for which the
19	vehicle for TSA?	19	forward curve is calculated. Fair?
20	MR. TAMBE: Objection to the form	20	MR. TAMBE: Objection to the form
21	of the question.	21	of that question.
22	A. I talked about cancellable swaps.	22	A. I wouldn't state it that way. I
23	Q. Maybe I'm misunderstanding the	23	would just state that X is the solution to the
24	distinction between callable and cancellable.	24	equation, and it's always that solution to
25	A. Yeah. Cancellable was outside of	25	that equation. Every day there's another
	Page 155		Page 157
1	5 5 11 1		-
	I) Rabbal	1	D. Rabbel
2	D. Babbel	1	D. Babbel
2	the volition of the TSA, as I understand it.	2	equation, and you can solve for the new X.
3	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing.	2	equation, and you can solve for the new X. Q. But you can't, you can't use the
3 4	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing	2 3 4	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is
3 4 5	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities.	2 3 4 5	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to
3 4 5 6	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage	2 3 4 5 6	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two
3 4 5 6 7	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed	2 3 4 5	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from
3 4 5 6	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the	2 3 4 5 6 7 8	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct?
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3 4 5 6 7 8 9 10	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change.	2 3 4 5 6 7 8 9 10	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean.
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3 4 5 6 7 8 9 10 11	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change. But these are, sort of, outside the control of TSA. So you just put expectations on it and you price it.	2 3 4 5 6 7 8 9 10 11 12	Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean. Q. You can't use the forward curve to determine interest rates five, ten, fifteen, twenty years out. Correct?
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3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change. But these are, sort of, outside the control of TSA. So you just put expectations on it and you price it. Q. You didn't calculate the pricing of what a cancellable swap would be in March 2009. Right? A. No. Q. Or what it would have earned in terms of a floating rate? A. No.	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean. Q. You can't use the forward curve to determine interest rates five, ten, fifteen, twenty years out. Correct? A. You can use forward rates how you want to. Some people might use it for that purpose. Q. But that would be speculating. A. Well, it could be reasoned through various other principals. The forward rates reflect the best information the market
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change. But these are, sort of, outside the control of TSA. So you just put expectations on it and you price it. Q. You didn't calculate the pricing of what a cancellable swap would be in March 2009. Right? A. No. Q. Or what it would have earned in terms of a floating rate? A. No. Q. If you turn to page 6 of your	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean. Q. You can't use the forward curve to determine interest rates five, ten, fifteen, twenty years out. Correct? A. You can use forward rates how you want to. Some people might use it for that purpose. Q. But that would be speculating. A. Well, it could be reasoned through various other principals. The forward rates reflect the best information the market has, not only on future interest rates, but on
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change. But these are, sort of, outside the control of TSA. So you just put expectations on it and you price it. Q. You didn't calculate the pricing of what a cancellable swap would be in March 2009. Right? A. No. Q. Or what it would have earned in terms of a floating rate? A. No. Q. If you turn to page 6 of your report. At the bottom of page 6, you	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean. Q. You can't use the forward curve to determine interest rates five, ten, fifteen, twenty years out. Correct? A. You can use forward rates how you want to. Some people might use it for that purpose. Q. But that would be speculating. A. Well, it could be reasoned through various other principals. The forward rates reflect the best information the market has, not only on future interest rates, but on credit risk and on liquidity and everything
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	the volition of the TSA, as I understand it. And so it doesn't invoke the option pricing. Instead, it invokes actuarial type pricing where you look at probabilities. It's sort of like mortgage backed well, no. Mortgage-backed securities actually some of the mortgage-backed securities have options in them where people will cancel them en masse because of an interest rate change. But these are, sort of, outside the control of TSA. So you just put expectations on it and you price it. Q. You didn't calculate the pricing of what a cancellable swap would be in March 2009. Right? A. No. Q. Or what it would have earned in terms of a floating rate? A. No. Q. If you turn to page 6 of your	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	equation, and you can solve for the new X. Q. But you can't, you can't use the equation unlike 5 plus X equals 8, which is always true, you can't use the equation to determine actual interest rates one or two years from now, or three or four years from now. Correct? A. I wouldn't use 5 plus X equals 8 to determine interest rates. I'm not sure what you mean. Q. You can't use the forward curve to determine interest rates five, ten, fifteen, twenty years out. Correct? A. You can use forward rates how you want to. Some people might use it for that purpose. Q. But that would be speculating. A. Well, it could be reasoned through various other principals. The forward rates reflect the best information the market has, not only on future interest rates, but on

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	-	1	-
1	D. Babbel	1	D. Babbel
2	So some people try to extract the	2	get the choice.
3	other information and find out the pure,	3	Well, we get the choice not to
4	implicit forecast that might be in the forward	4	buy or not to sell, but we don't get to pick
5	rate. And other people say that you don't	5	our own value. Because no one is going to do
6	accept those assumptions.	6	that. They use the market value.
7	Q. What about you?	7	Q. TSA would have liked any value,
8	A. I've looked at forward rates, and	8	but they couldn't get any from a market quote?
9	I've looked at all sorts of ways of	9	MR. TAMBE: Objection to the form
10	forecasting future interest rates. I've read	10	of the question.
11	the literature. I must have read a I'm	11	MR. LAWRENCE: Strike that.
12	just guessing 40 or 50 papers on it.	12	Q. On the next page, you state
13 14	Q. Do you	13 14	this is in the bottom paragraph there "In
15	MR. TAMBE: You want to let him	15	particular, note that the near-term rates for March 2009 are very low, and then from that
16	finish his answer.	16	
17	MR. LAWRENCE: I thought he was finished.	17	point the interest rate rises quite steadily."
18		18	Do you see that? A. Where is that?
19	A. There's a mixed response. Some people have better success with them than	19	
20		20	Q. Bottom of page 7.A. Yes, they are very low. That's
21	others, depending on what else they put in their model to filter out the other factors.	21	right.
22	Q. Do you believe that's an accurate	22	O. Is it fair that near-term rates
23	way to forecast interest rates five years out?	23	are typically very low compared to other
24	MR. TAMBE: Objection to the form	24	rates?
25	of the question.	25	A. No. We already talked about the
	•		·
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1	D. Babbel	1	D. Babbel
2	You can answer.	2	term structure, and it's typical that maybe 70
3	A. Well, earlier on in the	3	percent of the time I've seen some studies,
4	deposition, we talked about "reliable." I	4	some historical studies. About 70 percent of
5	said, "What's reliable? One basis point out	5	the time, the near-term rate is lower than the
6	of 100?" And I think I said 6.4 or 6.42 or	6	rate two years later or three years later.
7	something like that. And you said, "Let's	7	But I've seen also near-term rate at 18 to 21
8	start with that."	8	percent and the long-term at 12.
9	I have the same problem with the	9	Q. I assume you would acknowledge
10	question you just gave. Do you think that	10	that was in another anomalous period in the
11	forward rates give an accurate prediction of	11 12	late '70s. Correct?
12	future spot rates of interest? I don't know.		A. It was certainly a period of a
13	If you had asked the question:	13 14	lot of volatility and uncertainty.
14	"Are they better than other forecasting	15	Q. Can you turn to page 9. A. Yes.
15 16	techniques?" They're better than a lot of	16	
17	forecasting techniques. I've read a lot of papers showing that. But a forward rate can	17	Q. The second full paragraph includes, "I conclude that Messrs. Curry and
18	only reflect the information we have available	18	Hasterok's calculation of the termination
19	today, and tomorrow is another day.	19	amount will certainly yield TSA substantially
20	I would say the same thing about	20	more than the TSA contracted for with LBSF and
21	the stock market. You can't predict the	21	RFA."
22	dividends and the earnings of companies in the	22	Do you see that?
23	future very well. Neither can I. And yet the	23	A. Yes.
24	market has a price that it's worth today. And	24	Q. I need your help in understanding
25	we have to transact at that price. We don't	25	that. How will the termination amount yield
ر کے ب	We have to transact at that price. We don't	20	mac. 110 w will the termination amount yield

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1	-	1	D. Babbel
1 2	D. Babbel	1 2	
3	substantially more than what TSA contracted for?	3	last four years, .65, it's always changing
4	A. Let me look at the full	4	each day. They assumed it for the next 23
5			years. There's never been a period in our
	paragraph. Just a second.	5	history like that.
6	Q. Sure.	6	If you ask any economist or just
7	A. (Document review.) Well, yes,	7	ask the market: What are you predicting, or
8	they did three things in their calculation,	8	what are you thinking about the future?
9	all of which inflate the value to TSA of the	9	They're saying we face some very rough water
10	contract.	10	ahead because of the monetary policy that
11	Q. And I understand your opinion on	11	we've undertaken as well as our fiscal policy.
12	that. I'm just trying to specifically	12	So inflation is down the road.
13	understand this sentence.	13	We just don't know when it's going to hit.
14	What is the yield that TSA	14	But when it does, interest rates reflect the
15	contracted for? Maybe that's what I'm trying	15	inflation rate.
16	to figure out. I mean, TSA contracted for a	16	Q. Let me ask it a different way.
17	guaranteed rate of 4.484 percent.	17	Do you have an opinion as to what
18	A. Okay. I see. Maybe the choice	18	earnings TSA contracted for with Lehman
19	of my word "yield" is signifying to you	19	Brothers in the RFA?
20	something to you other than I intended. I	20	A. I have an understanding that TSA
21	could have used the word "give," "provide,"	21	contracted for 4.484 percent.
22	"earn," something else. I don't mean an	22	Q. And how is Curry and Hasterok's
23	interest rate. I mean a return.	23	calculation of the termination amount going to
24	Q. So again, I'm trying to	24	yield more than what TSA contracted for?
25	understand, TSA contracted to get 4.484	25	A. We don't know what it's going to
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1	D. Babbel	1	D. Babbel
2	percent from Lehman Brothers. Correct?	2	yield. We only know one thing and I'd
3	A. That's right. And also to give	3	stake my reputation on this that it's not
4	them a floating rate opportunity to invest 45	4	going to be that the markets are not going
5	million for some 20-plus years.	5	to provide 0.65 percent from now for the next
6	Q. Right. But I'm saying, from	6	23 years. There's zero percent chance of that
7	TSA's point of view, they gave over \$45	7	happening.
8	million every six months, and they got back	8	Q. And would you agree there's a
9	4.484 percent?	9	zero percent chance of the market providing
10	A. Plus 45 million.	10	the yields reflected in the forward curve as
11	Q. Plus 45 million, exactly.	11	of March 25, 2009, over the next 23 years?
12	So how does Curry and Hasterok's	12	A. I would agree that the market
13	calculation yield or earn more than that?	13	will provide more or less than the forward
14	A. Curry and Hasterok were taking	14	curve. Some years more; some years less.
15	some historical average rate over four months,		Q. If I bought a ten-year treasury
16	or something like that, and assuming it goes	16	on March 25, 2009, and my partner buys
17	on forever. And instead of that's one	17	six-month treasury bills buys six-month
18	problem.	18	treasury bills every six months for ten years,
19	The second problem is that they	19	do you believe that they're going to end up in
20	discounted it, not by the rate the whole	20	the same place in terms of the amount of money
21	market uses, but they discounted it by that	21	they've earned over that ten-year period?
22		22	A. I don't know.
23	similar rate. They set their cash flows based	23	Q. You can't tell based on the
	upon that same rate prevailing.	23 24	forward curve. Correct?
2.4			
24 25	Well, that same rate hasn't prevailed maybe one or two days out of the	25	A. No.

Page 166 Page 168 1 D. Babbel 1 D. Babbel 2 Q. Is that correct? 2 then you can use -- the second tier would be 3 3 to mark the model. Then the model needs to be A. That's correct. Q. If you turn to page 12, you have consistent with things that are accurately 4 4 5 5 traded, which tell you the value of money at two -- you have a chart on page 12 and a chart 6 6 on page 13 showing curves. What is the point different points in time for future delivery. 7 of those two charts? 7 Q. So you're talking about the FAS 8 8 A. Two points: First, that the term 150? A. I think it's 150. 9 structures -- the spot rates are extremely 9 important in valuing things, so important that 10 10 Q. What's owed by Level III assets? A. What about them? the treasury goes through the trouble of 11 11 calculating every single day of the year. Not 12 12 Q. How do you value those? MR. TAMBE: Objection to the form 13 only the treasury, but now we have all these 13 14 other private corporations that are trying to 14 of the question. 15 get a more refined calculation. 15 A. I don't remember. I remember 16 Secondly, that the treasury 16 reading it. 17 calculates the forward rates every day for 17 Q. Do you know whether or not banks 18 every year since 1960, not just the U.S. 18 consider Tobacco RFA's to be Level III assets 19 Treasury, but every other place. Like Goldman 19 or Level II assets? 20 Sachs, like Lehman Brothers, like Merrill 20 A. I don't know. 21 Lynch, like just about every other trading 21 Q. And you don't have an opinion as house, calculates these forward curves and 22 to whether it's a Level II asset or Level III 22 spot curbs every day; in fact, every minute of 23 23 asset. Is that correct? 24 the day because they're important in valuing 24 A. That's correct. 25 instruments. 25 Q. Okay. If you turn to page 14. Page 167 Page 169 D. Babbel 1 1 D. Babbel 2 2 And I just want to show you some A. (Complying.) 3 3 evidence of that. Because it sounded like You have a Table 1. Do you see 4 4 from the report -- until I heard the that? 5 depositions from the report of Curry and 5 A. Yes. 6 Hasterok, it sounded like they were eschewing 6 Q. And these are published by the the use of forward and spot rates when they're 7 7 Fed Reserve Board? 8 primary tools in the valuation in the 8 A. Yes, economists that were 9 marketplace. Now, their depositions said that 9 contracted by them and one of them who works 10 they agreed, then they always used them 10 with them. 11 themselves. 11 O. And what does that tell us 12 about -- just so I can understand the table --12 Q. The disagreement is whether or it says, "Year 1, spot rates of interest, .66 13 not forward curves are a usable tool for a 13 14 contract that is not being transacted. And I 14 percent. Forward rates of interest .92 percent." 15 know you think it's okay, and they think it's 15 16 not. 16 What is that telling me? 17 17 A. Yes. From time 0 to time 1, the A. Uh-huh. Q. Is there any publication that you 18 amount of yield you can get for a one-year 18 can point to that gives us guidance as to how 19 instrument is .66 percent. And the forward 19 20 we should value when there's no market to 20 rate of interest for time 1 to time 2 is 0.92 21 transact in a certain asset? 21 percent. So that's one year looking forward. 22 O. I'm sorry. Is that -- I just 22 A. Sure. The Accounting Standards 23 Board has produced a hierarchy for use in 23 want to make sure I understand. Are you valuation and reporting. And what they say saying that the -- that the .92 percent 24 24 is: If you cannot find active trades, quotes, 25 25 interest is what you need to earn in the

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1	D. Babbel	1	D. Babbel
2	second year to get to the .95 percent spot	2	derivative?
3	rate?	3	A. I would define a derivative as
4	A. Good question. I need to check	4	something whose value depends upon the value
5	that.	5	of something else.
6	I looked at it, and I can't	6	Q. Based on that definition, do you
7	remember right now.	7	consider the TSA RFA to be a derivative
8	Q. But if I were buying a one-year	8	transact?
9	treasury on March 25, 2009, I'd be able to get	9	A. I don't opine on that. What I
10	.66 percent interest for that one-year	10	opine on is that it could be valued using
11	treasure. Correct?	11	methods that are appropriate for derivatives
12	A. Yes. That's their spot rate.	12	and nonderivatives.
13	And that's based on treasury bonds and not the	13	Q. Isn't the RFA securities
14	bills.	14	transaction what a dealer would typically
15	Q. Sorry.	15	hedge using derivative transactions?
16	A. The treasury also uses a slight	16	MR. TAMBE: Objection to the form
17	smoothing routine that isn't used by all the	17	of the question.
18	market by some market participants. So you	18	A. I don't know whether a dealer
19	get a smoother curve when the treasury does	19	would typically hedge it. I know that dealers
20	it. That's just their preference.	20	can hedge it, at least to some extent.
21	Q. Are you familiar with ISDA?	21	Q. Well, with your experience in the
22	A. I know of it, yes.	22	marketplace, you don't know whether or not
23	Q. What is ISDA?	23	dealers would typically hedge an RFA
24	A. It's a protocol for swaps and	24	transaction?
25	derivatives, and that's the S and the D.	25	A. I know what Goldman would do, and
	Page 171		Page 173
1	D. Babbel	1	D. Babbel
2	Q. You're right. Do you understand	2	I have an understanding of what most dealers
3	how it's used in the industry?	3	do. They try to lock in a profit and hedge
4	A. Well, they have, sort of	4	out the rest and move on.
5	MR. TAMBE: Objection to the form	5	Q. Do you know what Lehman did in
6	of the question. "How" what's	6	this case?
7	"used in the industry"?	7	A. No.
8	MR. LAWRENCE: The ISDA master	8	Q. So on page 19, you identify four,
9	contract and schedule are used in the	9	I guess, economic theories sorry, 15. On
10	industry.	10	page 15, you talk about four theories, regard
11	A. So that's now you took away my	11	that one might use to look at future levels of
12	answer. That's what I was going to say. They	12	interest rates. Is that correct?
13	have a master, sort of, a standard form	13	A. Yes.
14	agreement that can be modified. But that's	14	Q. And would you agree that all four
15	the standard, a starting place.	15	of those theories would have predicted
16	Q. Was the TSA RFA subject to the	16	different interest rates for the period 2009
17	ISDA master schedule?	17	to 2014 than in actuality occurred?
18	A. Don't know.	18	A. I don't know. I haven't the
19	Q. Is the TSA RFA a derivative	19	theories are they're not that simple that I
20	transaction?	20	
21		21	could respond without doing some calculations.
22	MR. TAMBE: Objection to the form	22	Q. On page 16, in the middle of the
23	of the question.	23	paragraph on that page, you say Messrs. Curry
24	A. How are you defining a	23	and Hasterok have simply ignored the fact that
25	derivative?	25	to make forward commitments, the providing
20	Q. How would you define a	۷۵	institution, LBSF, will have to incur the

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1	D. Babbel	1	D. Babbel
2	market costs of doing so. And those market	2	methodology, but I didn't verify anything,
3	costs are reflected in the term structure of	3	replicate anything. I was not asked to do any
4	interest rates."	4	valuations.
5	Do you see that?	5	Q. You were not asked to provide any
6	A. Yes, yes.	6	opinion, at least as far as I see in your
7	Q. Can you help me explain that	7	report, about swaps?
8	sentence to me.	8	A. About swaps?
9	A. Yes. Mr. Curry and Hasterok	9	Q. About the SWAP Financial
10	have let me start over again.	10	calculation?
11	Lehman Brothers and LBSF are	11	A. That's correct.
12	going to be making commitments, putting Lehman		MR. LAWRENCE: Why don't we take
13	on the line for a number of years in the	13	five minutes and see if we're about
14	future.	14	done.
15	And if they're going to be	15	MR. TAMBE: Okay.
16	providing payments to TSA, they have to figure	16	(Recess taken from 3:43 p.m. to
17	out how to get those payments and the	17	3:53 p.m.)
18	appropriate amounts to TSA.	18	(Continued on the next page.)
19	A typical dealer will not just go	19	(Continued on the next page.)
20	naked on it. They will hedge it, and they	20	
21	will find market instruments that provide	21	
22	those sorts of cash flows.	22	
23	Q. When you say "market costs,"	23	
24	you're talking about of obtaining hedges?	24	
25	A. Yes.	25	
25	Page 175		Page 177
	-		_
1	D. Babbel	1	D. Babbel
2	Q. Now, you reviewed the valuation	2	BY MR. LAWRENCE:
3	matrix that was prepared by Messrs. Curry and	3	Q. Under your contract with Jones
4	Hasterok?	4	Day, I understand there's a cap on fees of
5	A. I read about it.	5	\$75,000. My question is: What fees have been
6	Q. One of the items on the matrix	6	incurred to date?
7	was a callable swap, and it had a yield	7	A. \$75,000.
8	associated with that.	8	MR. LAWRENCE: That's it. Thank
9	Do you recall that?	9	you.
10	A. I recall that.	10	(Time noted: 3:53 p.m.)
11	Q. Did you do any research to	11	
12	determine whether or not they used the correct	12	
13	yield for that type of instrument?	13	
14	A. No.	14	
15	Q. Did you do any research to	15	
16	determine whether or not the yields identified	16	
17	in the valuation matrix were accurate or not?	17	
18	A. No. That was not my task.	18	
19	Q. And I take it you were not asked	19	
20	to review the calculation of SWAP	20	
21	Financials. Is that correct?	21	
22	A. That's right. Let me say, your	22	
23	question was not asked to review the	23 24	
2.4			
24 25	calculation. So that's correct. I did not review the calculation. I did look at the	25	

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D. Babbel D. Babbel A C K N O W L E D G M E N T STATE OF S ss COUNTY OF I, DAVID F. BABBEL hereby certify that I have read the transcript of my testimony taken under oath in my deposition of March 7, 2014; that the transcript is a true, complete and correct record of my testimony, and that the answers on the record as given by me are true and correct. DAVID F. BABBEL DAVID F. BABBEL DAVID F. BABBEL Signed and subscribed to before me this	D. Babbel INDEX Examinations Page MR. LAWRENCE EXHIBITS Babbel Page Line Exhibit 1 Report of David F. Babbel 41 9 Report of David F. Babbel 41 9
D. Babbel CERTIFICATE STATE OF NEW YORK Siss. COUNTY OF NASSAU I, PATRICIA A. BIDONDE, a Notary Public within and for the State of New York, do hereby certify: That DAVID F. BABBEL, the witness whose deposition is hereinbefore set forth, was duly sworn by me and that such deposition is a true record of the testimony given by the witness. I further certify that I am not related to any of the parties to this action by blood or marriage, and that I min no way interested in the outcome of this matter. IN WITNESS WHEREOF, I have hereunto set my hand this day, March 17, 2014. PATRICIA A. BIDONDE, RPR	Page 181 D. Babbel ERRATA SHEET FOR THE TRANSCRIPT OF: Case Name: In Re: Lehman BROTHERS HOLDINGS. Dep Date: March 7, 2014 Deponent: DAVID F. BABBEL Pg. Ln. Now Reads Should Read Reason

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